

Center for Equity

Task Force Meeting #5 Progress Report

February 25, 2020

Atlanta City Detention Center
254 Peachtree Street SW
Atlanta, GA 30303

Center for Equity

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Where are we now?

This project started with a vision to close the jail and reimagine policies and new building programs that would offer resources instead of punishment to those most impacted to begin changing the narrative around public safety.

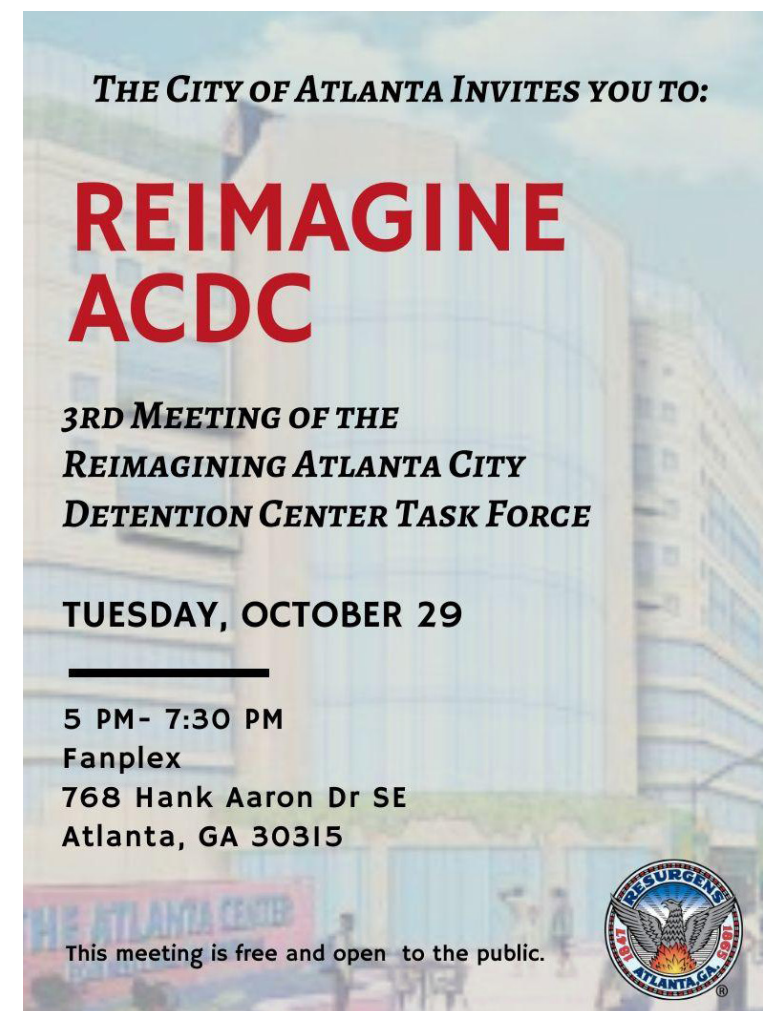
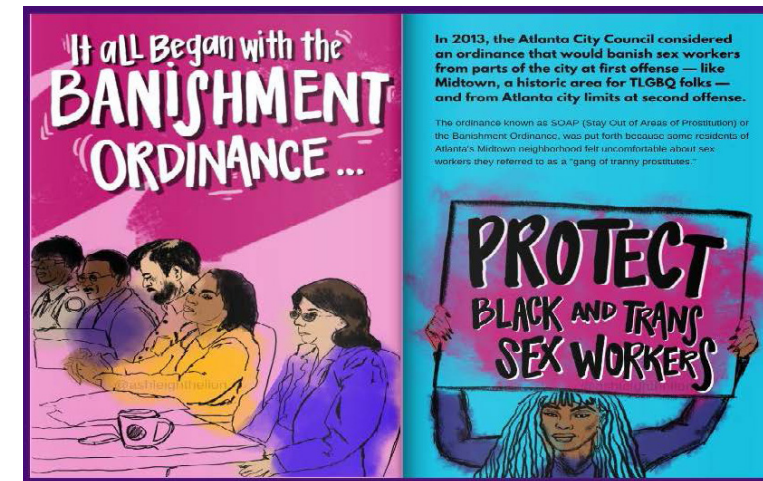
In 2019, the process of engaging the community helped to define what the Center for Equity should include.

The architectural conceptual design process followed to interpret the requested programming into the three-dimensional context of the ACDC building and site.

As the initial architectural design options are approaching finalization, the process of pricing these options has begun but has not yet been finalized.

Once the options have been priced, the discussion of how to pay for the options will accelerate.

It is anticipated that there will be an iterative process to refine the four major design components: programming, architecture, real estate finance, and policy implications.





9 PATHWAYS TO EQUITY

The question of equity and what it means for this project is as varied and layered as the people the Center will serve. The 9 Pathways provide a means to explore various opportunities to explore equity in this unique context.

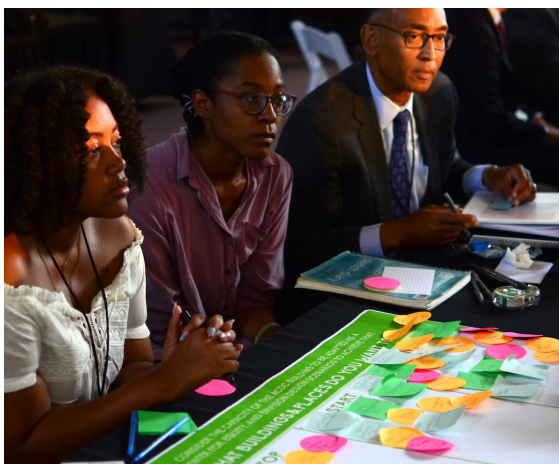
BUILDING EQUITY THROUGH PROCESS

Community Engagement Tools, Methods, and Gatherings

Racial Justice Action Center and Women on the Rise worked closely with DJDS to facilitate a robust community engagement process. DJDS designed fun and engaging tools to help the community assess and express specific concerns, needs and visions of priority impacted groups.



Vision Cards



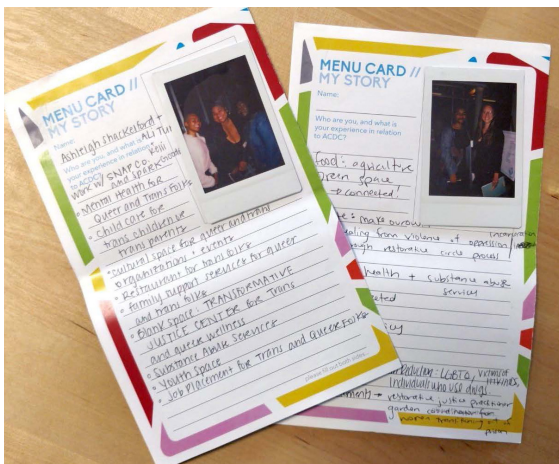
Stop / Start / Continue



Space Planning & Finance Game



Space Planning & Finance Game



Menu Cards



A Seat at the Table



BUILDING EQUITY THROUGH PROCESS

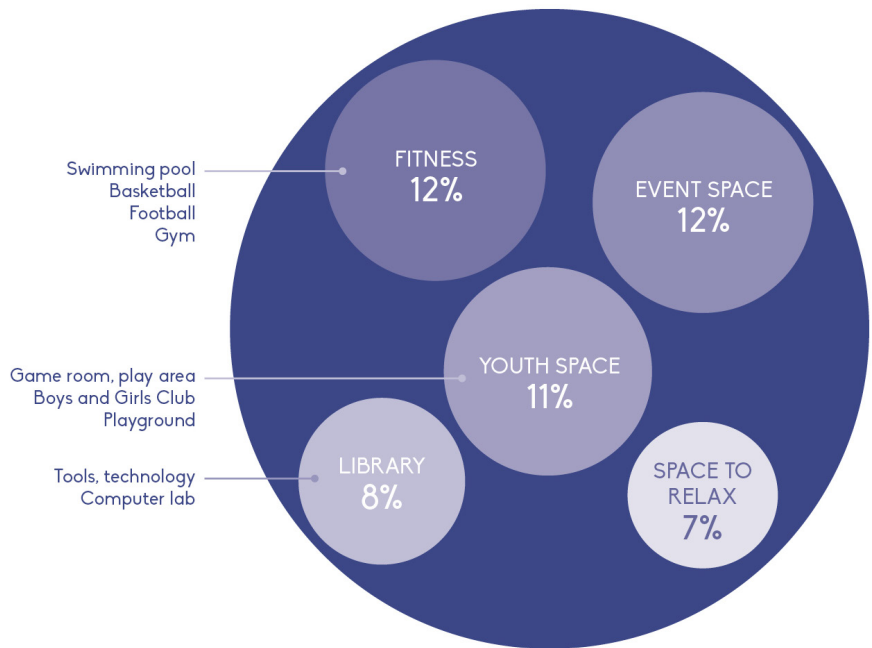
What would you like the Center for Equity to include?

What is equity?

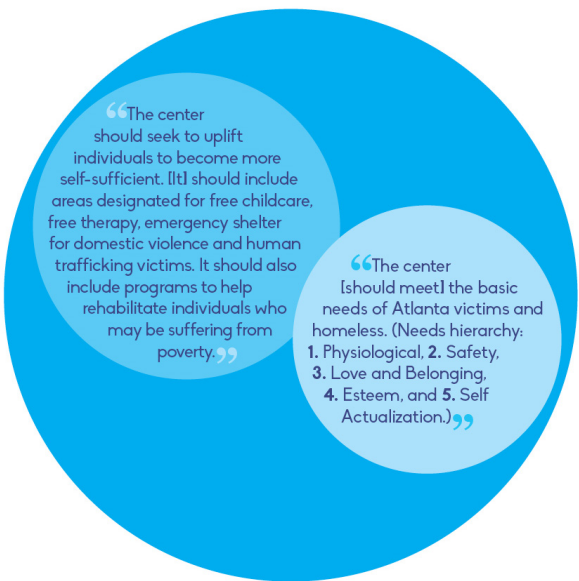
Our hope is that the process by which the community was engaged around this reimagining starts to exemplify this concept. It's important to take a step back in our timeline and look at the results from our coded and analyzed data from the community engagement phase. This data conveys the community's vision and priorities for the Center for Equity and is one of the main drivers for the concept development process.

- Community event and recreation spaces, along with a One-Stop-Care Center are top priorities to be included in the Center for Equity.
- While housing was important, transitional housing overwhelmingly leads the charge.
- Many people want to improve their choices, quality, and access to good food while creating jobs.
- Many recognized the importance of integrating arts and culture into all aspects of the Center.

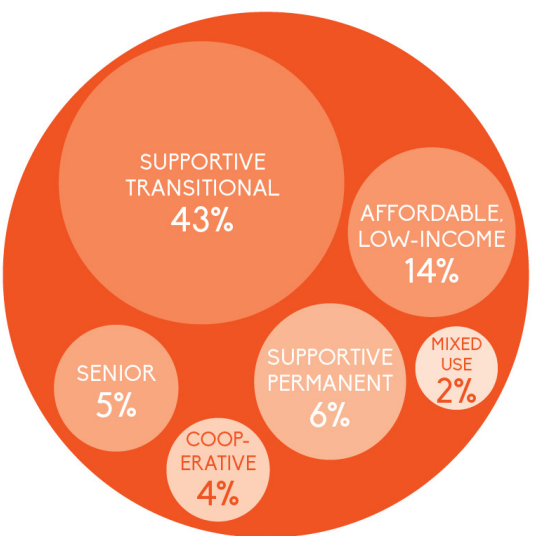
COMMUNITY & RECREATION 192



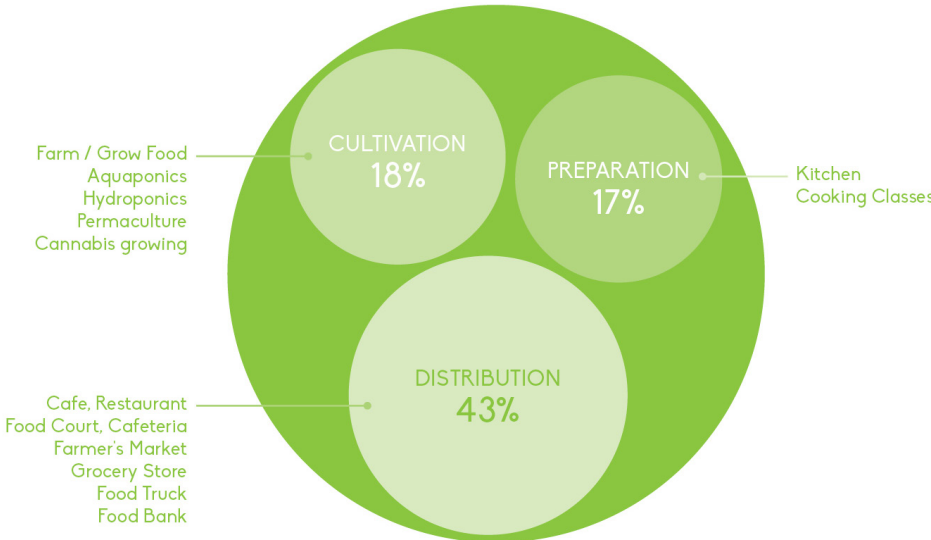
RESOURCE SERVICES CENTER (ONE STOP CARE) 170



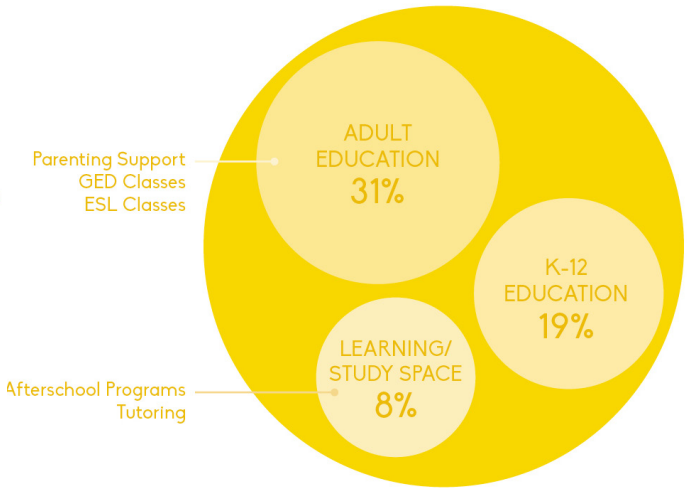
HOUSING 156



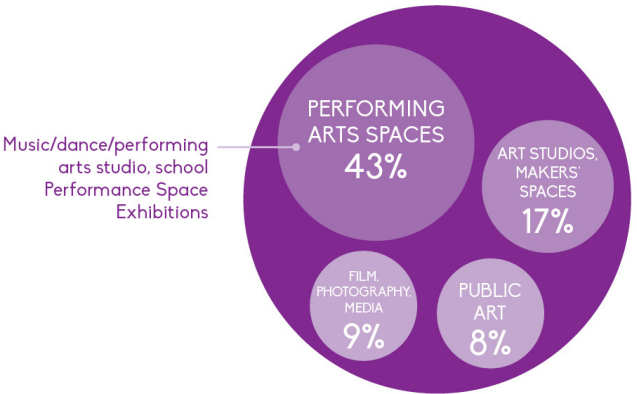
FOOD & AGRICULTURE 157



EDUCATION 141



ARTS & CULTURE SPACE 115

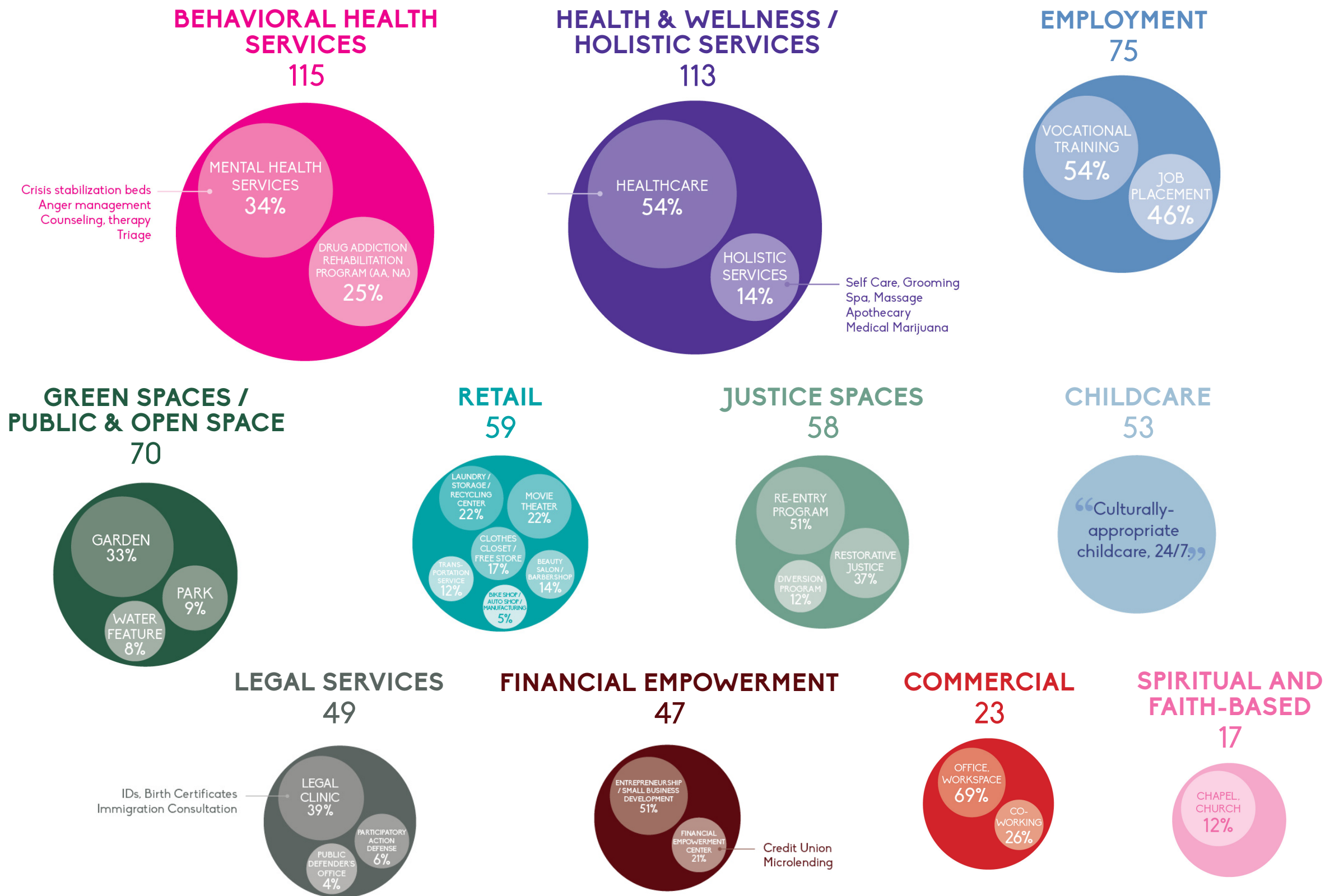


BUILDING EQUITY THROUGH PROCESS

What would you like the Center for Equity to include?

People were clear that ensuring access to education while also placing emphasis on behavioral health and overall holistic wellness can change lives.

Cultivating a strong employment and workforce development core from an educated and healthy community — that thrives — is a clear goal; and with supportive childcare, legal services, and justice programming surrounded by thoughtful green/open spaces.



CENTER FOR EQUITY // Village Pathways & Intersections

A New Kind of One-Stop Shop

The 9 Pathways emerged from a coded analysis of the community engagement responses, surveys and provider interview data. They represent inspired guidelines which will continue to embody and integrate equity into the building programming and design themes used throughout the development of the project.





MASTER PLANNING

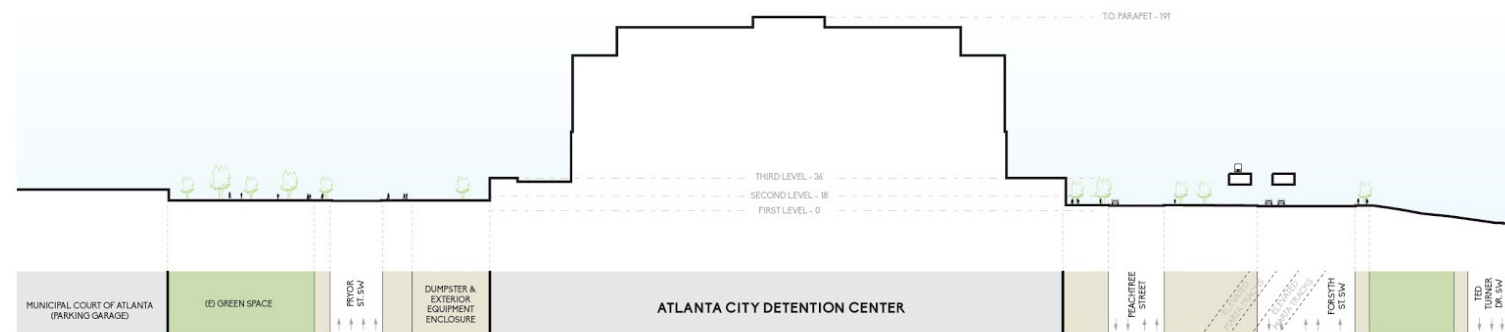
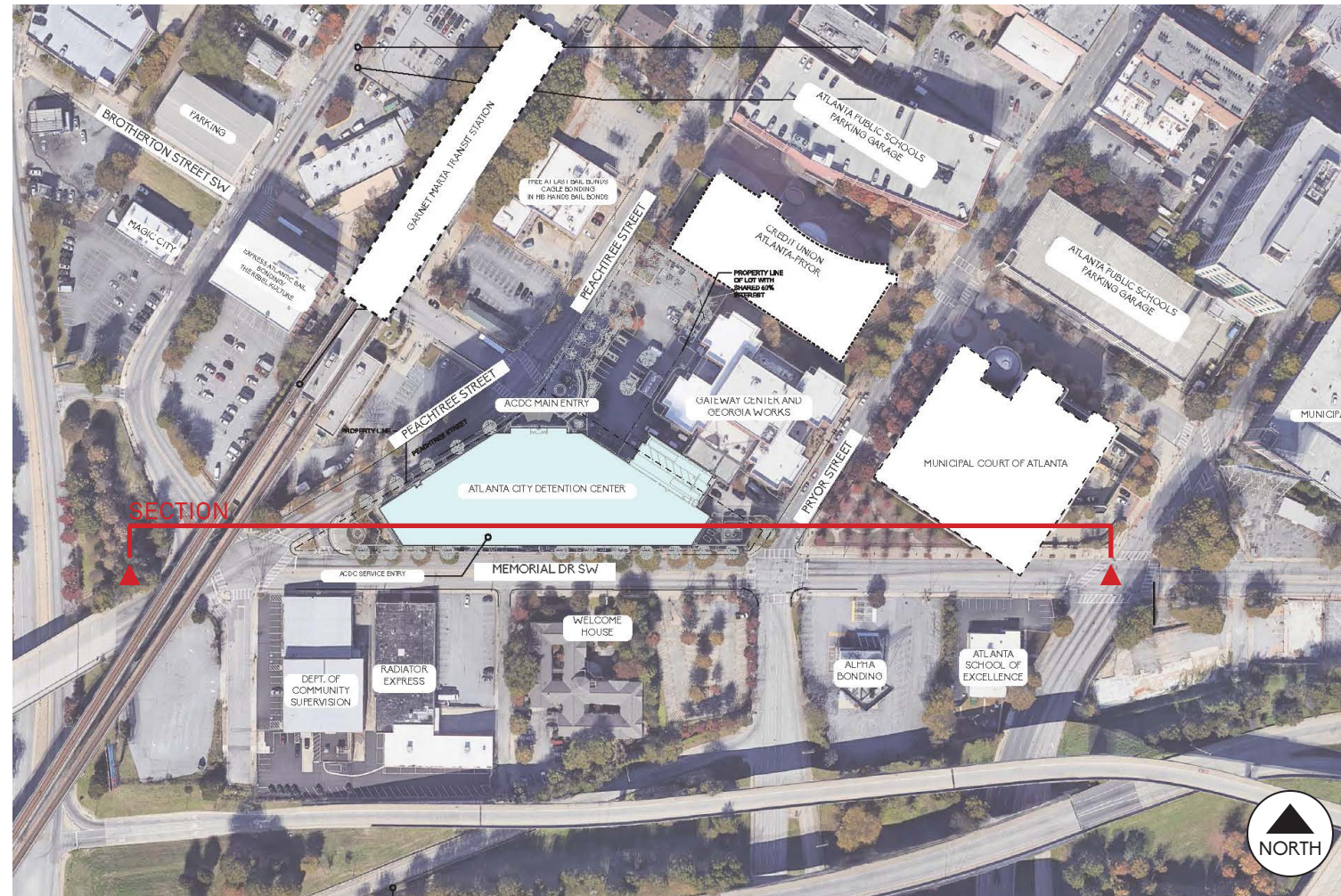
REIMAGINING THE BLOCK

In order for the Center for Equity to be effective, the reimagining has to extend outside the walls of the building into the surrounding South Downtown Atlanta context. With the support of Atlanta City Studios, DJDS held a master planning workshop to begin asking: *What new developments around the Center for Equity can help support what happens inside a repurposed or an entirely new building?*

MASTER PLANNING WORKSHOP // Reimagining the Block

Master Planning Workshop Themes

- Cultivating partnerships for cohesive development of private and public owned lots near ACDC
- *Improving connection to public transportation, pedestrian activity, and parking*
- Promoting a mix of amenities, activities, and uses that encourage people to come and stay in South Downtown
- **More residential:** Creating housing opportunities for “the missing middle”: Duplex / triplex / fourplex, Townhomes, live/work, bungalow and courtyard apartments



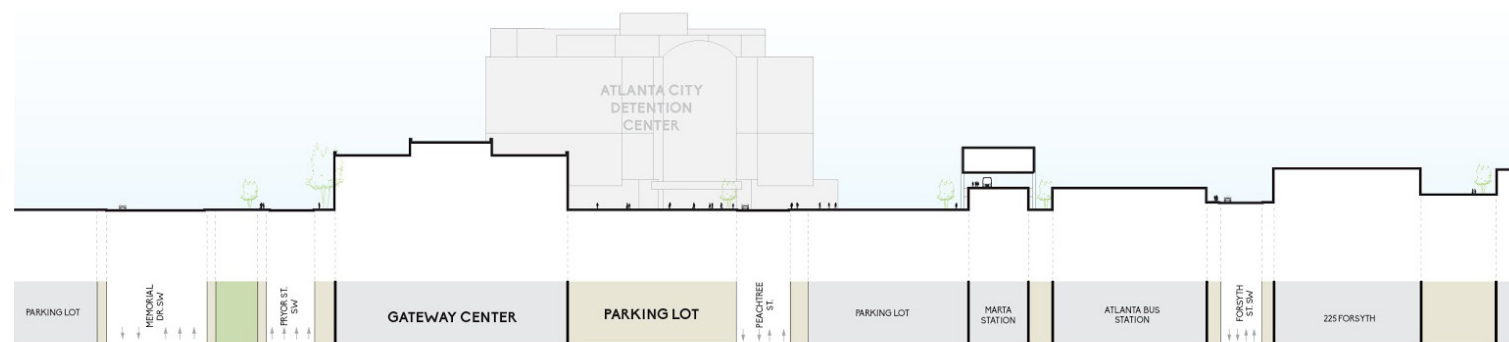
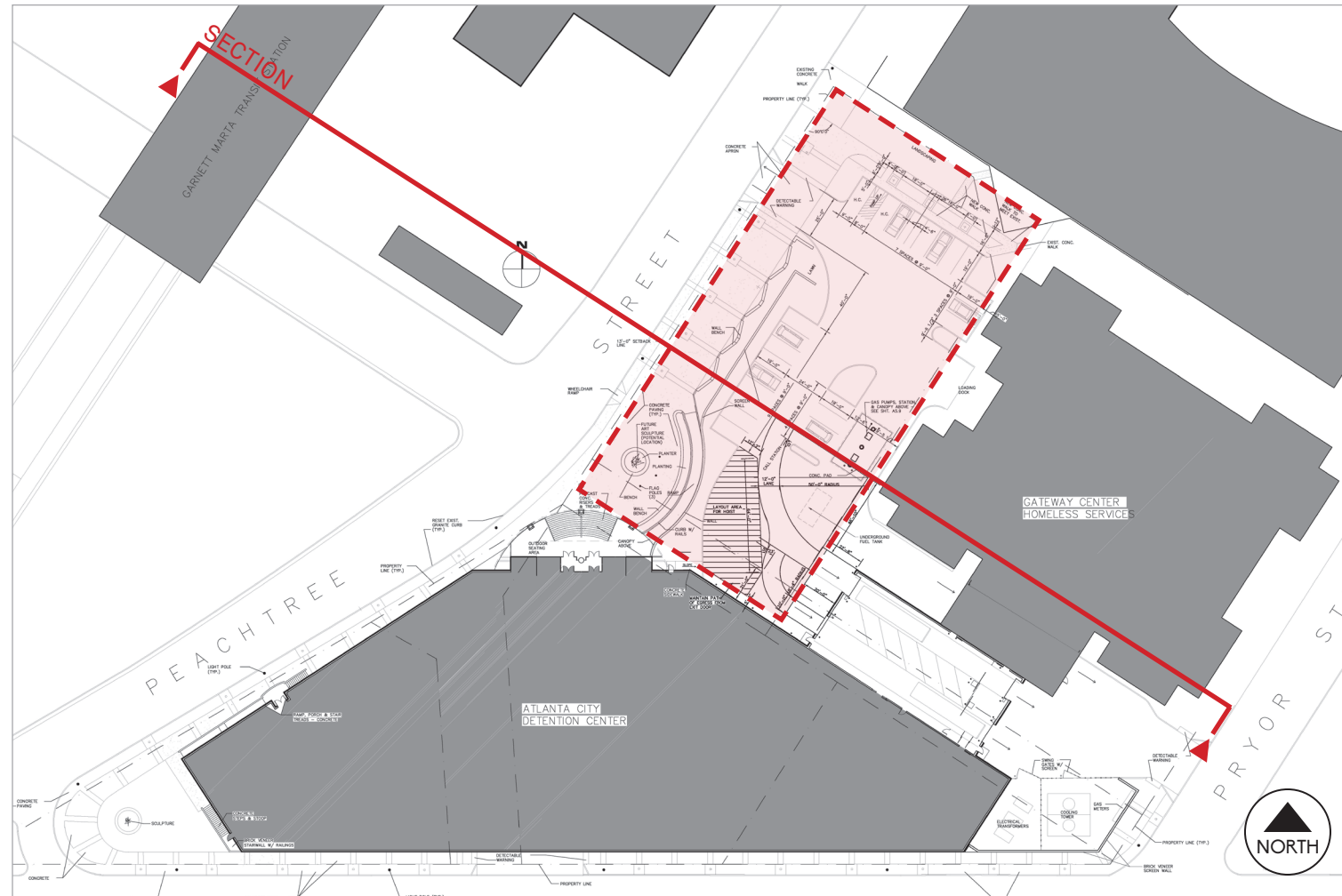
SITE SECTION A-A
DRAWING SCALE 1" = 40'



MASTER PLANNING WORKSHOP // Reimagining the Block

Master Planning Workshop Themes

- How can the shared lot between the proposed Center for Equity and the Gateway Center for homeless better support the programs/uses?
- Rethinking existing uses, lots, and businesses around the site
- How are the bail bonds sites redeveloped?
- There is hope that the Gateway Center will not be needed in the future and can be redeveloped into housing
- Activate all sides of the building site with ground floor activation, frontage for plazas and multiple entries, built-in spaces for pop-up shops / farmers markets



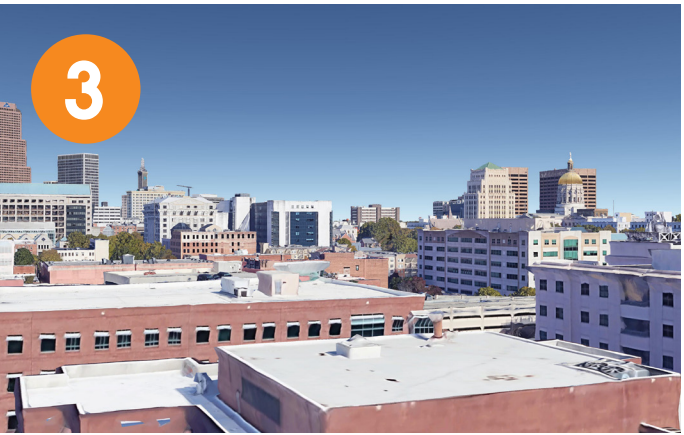
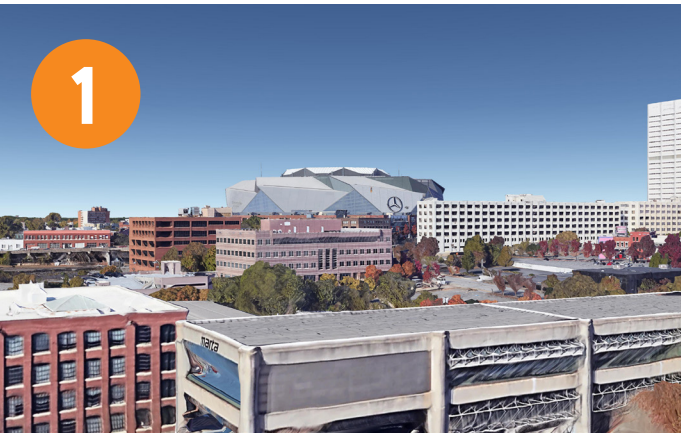
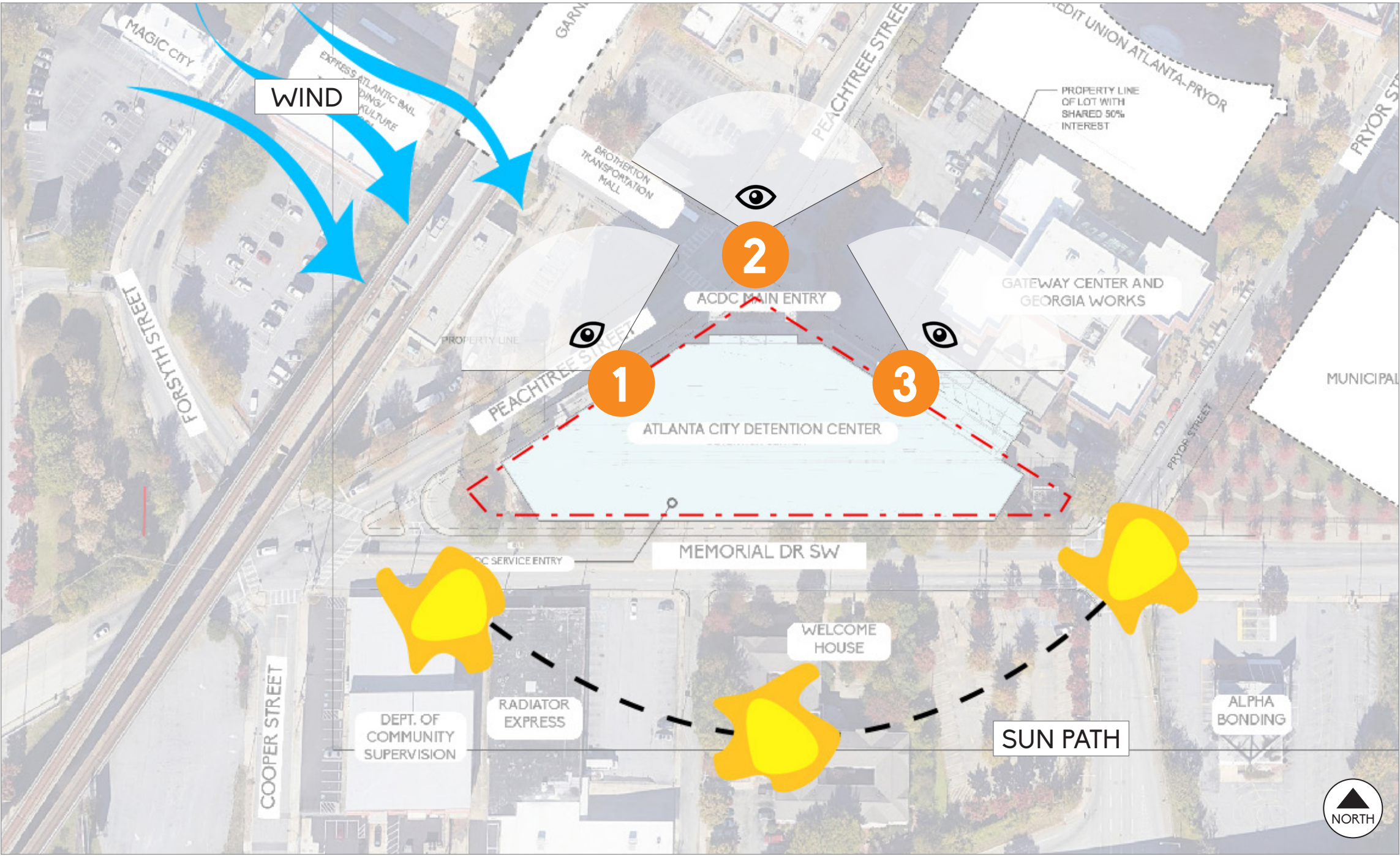
SITE SECTION C-C
DRAWING SCALE 1" = 40'



MASTER PLANNING STUDIES

Views and Sightlines

A basic site analysis examines views, the path of the sun for heat gain, and shading and wind patterns that affect the site. In the study diagrams on the following pages, we examine various factors around the site that inform both repurposing or new build strategies.

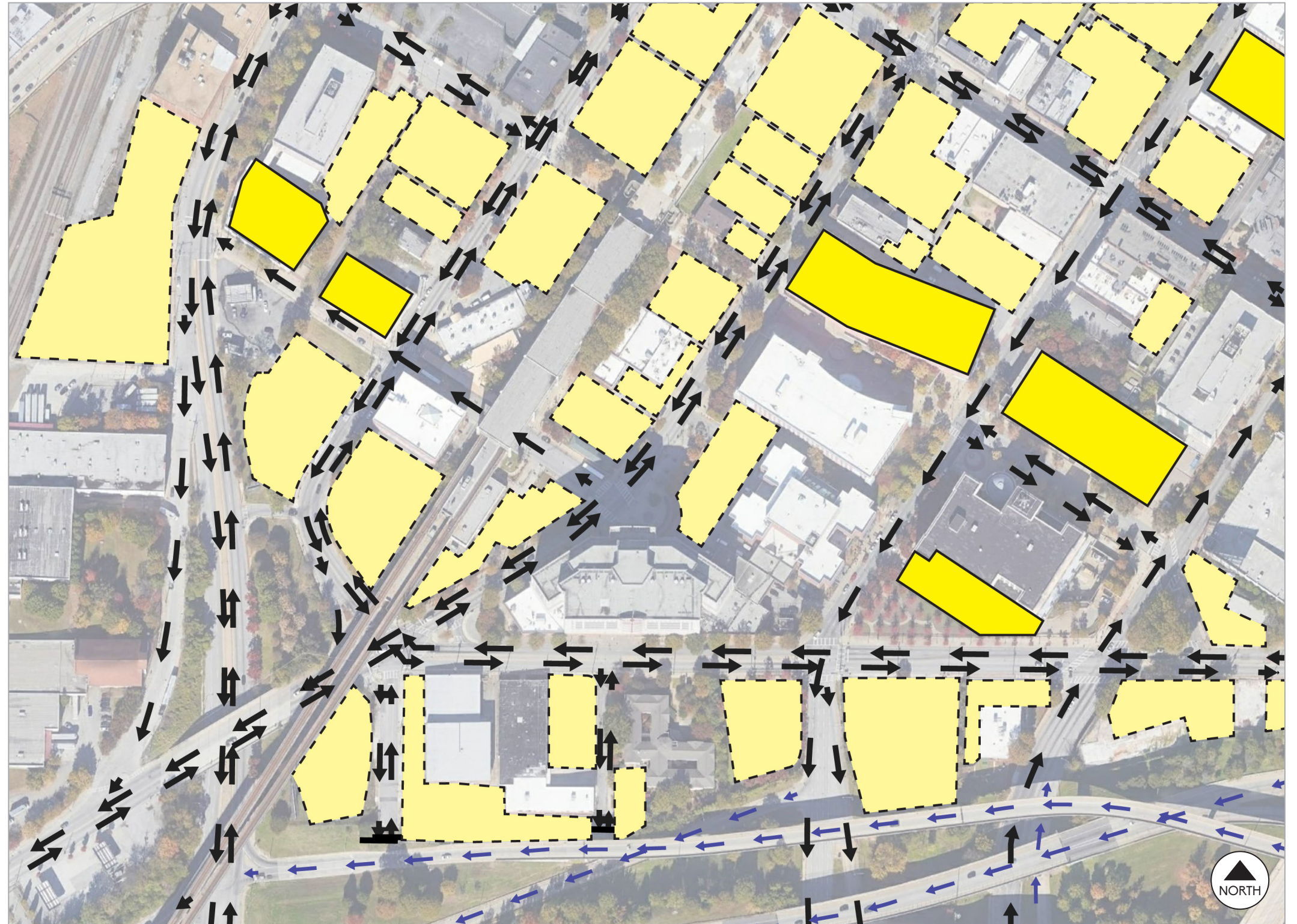


MASTER PLANNING STUDIES

Parking Lots and Garages

Master Planning Workshop Themes

- Areas in yellow highlight a disproportionate amount of land dedicated to inefficient surface parking lots and cars in an area located adjacent to a MARTA station
- Develop municipal parking deals for a few larger centralized multi-level municipal parking garages and develop surface lots for density
- These areas could offer more potential for open green space as well as more missions-aligned development for the Center for Equity.

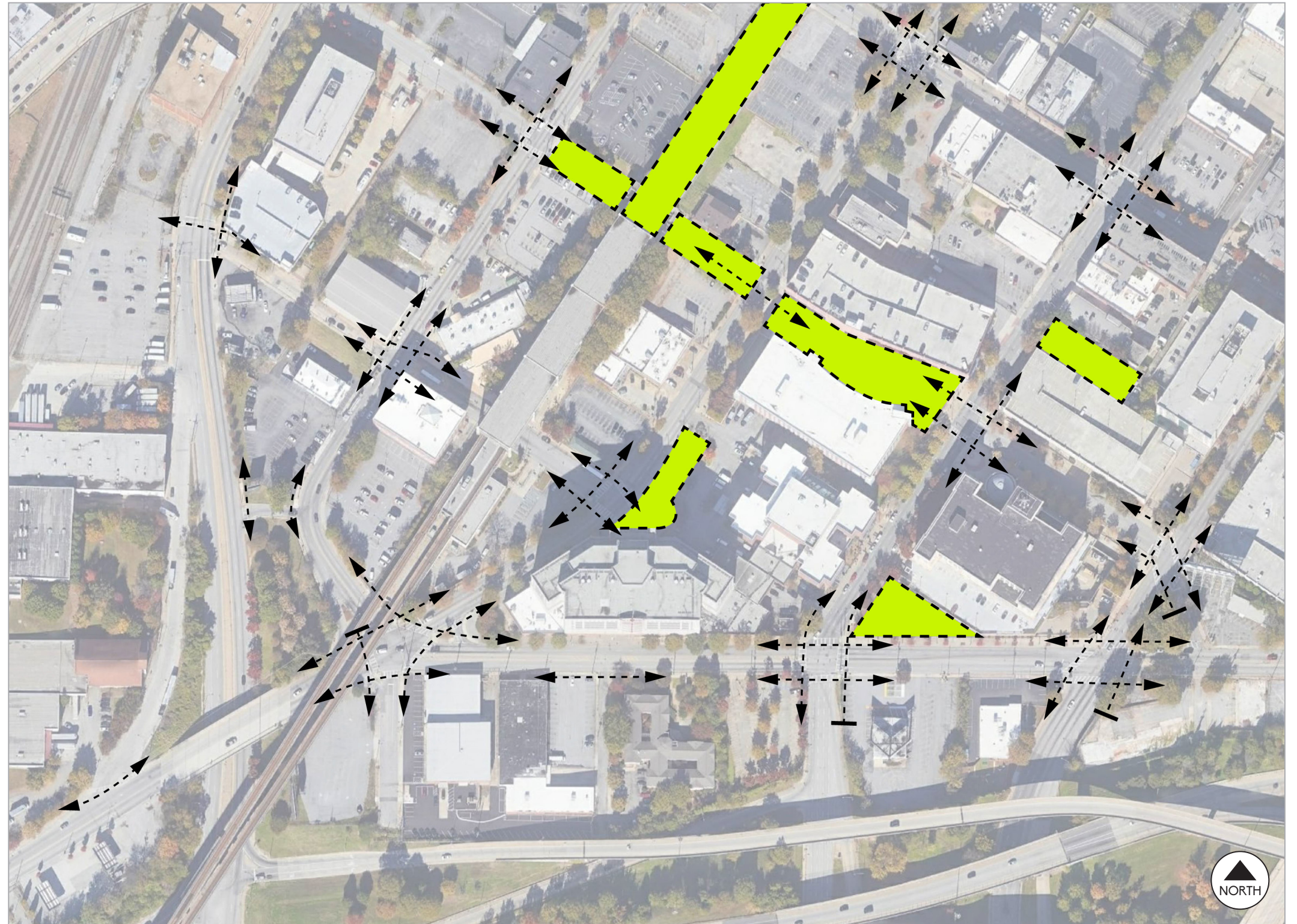


MASTER PLANNING STUDIES

Public Open Space and Access

Master Planning Workshop Themes

- The lack of public open green space is in stark contrast to parking in the area
- Promoting local food production, cultivation and distribution in South Downtown
- Expression of public art, culture, and permanent support for local artists
- Promoting cohabitation and reducing competition for the public space by encouraging stakeholders to share their environment
- Addressing homelessness, build public spaces that are hospitable to all

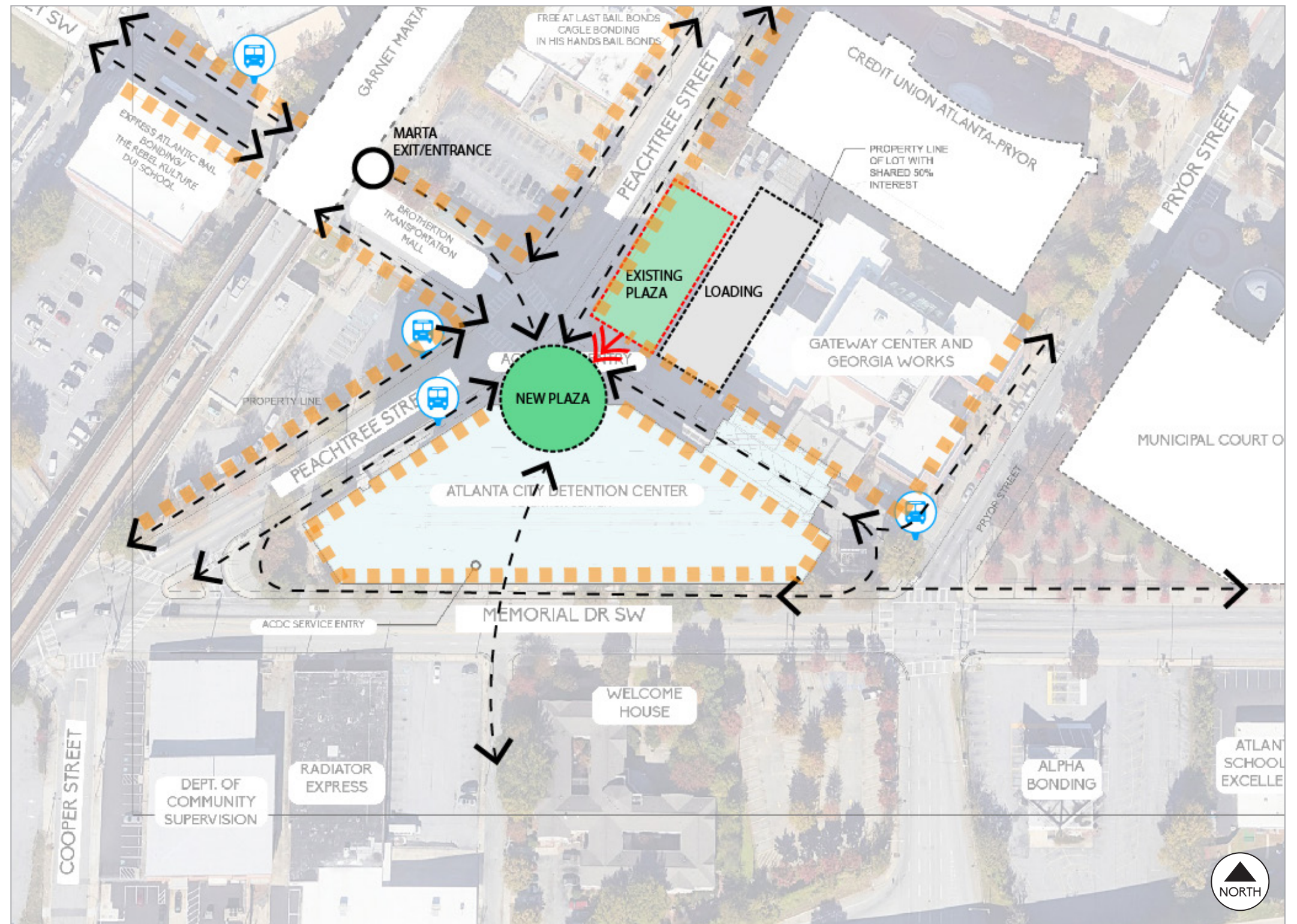


MASTER PLANNING STUDIES

Pedestrian and Vehicular Flow

Master Planning Workshop Themes

- Promoting pedestrian safety/circulation and access with improved pedestrian pathways around ACDC
- Improve pedestrian experience from MARTA to entry of ACDC with a mix of amenities and proposed improvements from the South Downtown Transit Enhancement Plan
 - Future MARTA improvements include streetscape and wayfinding enhancements
 - New proposed roadside plaza at the Trinity Avenue entrance activated with pop-up retail, signage, and lighting
 - Better integration of the Greyhound station/ Brotherton Street

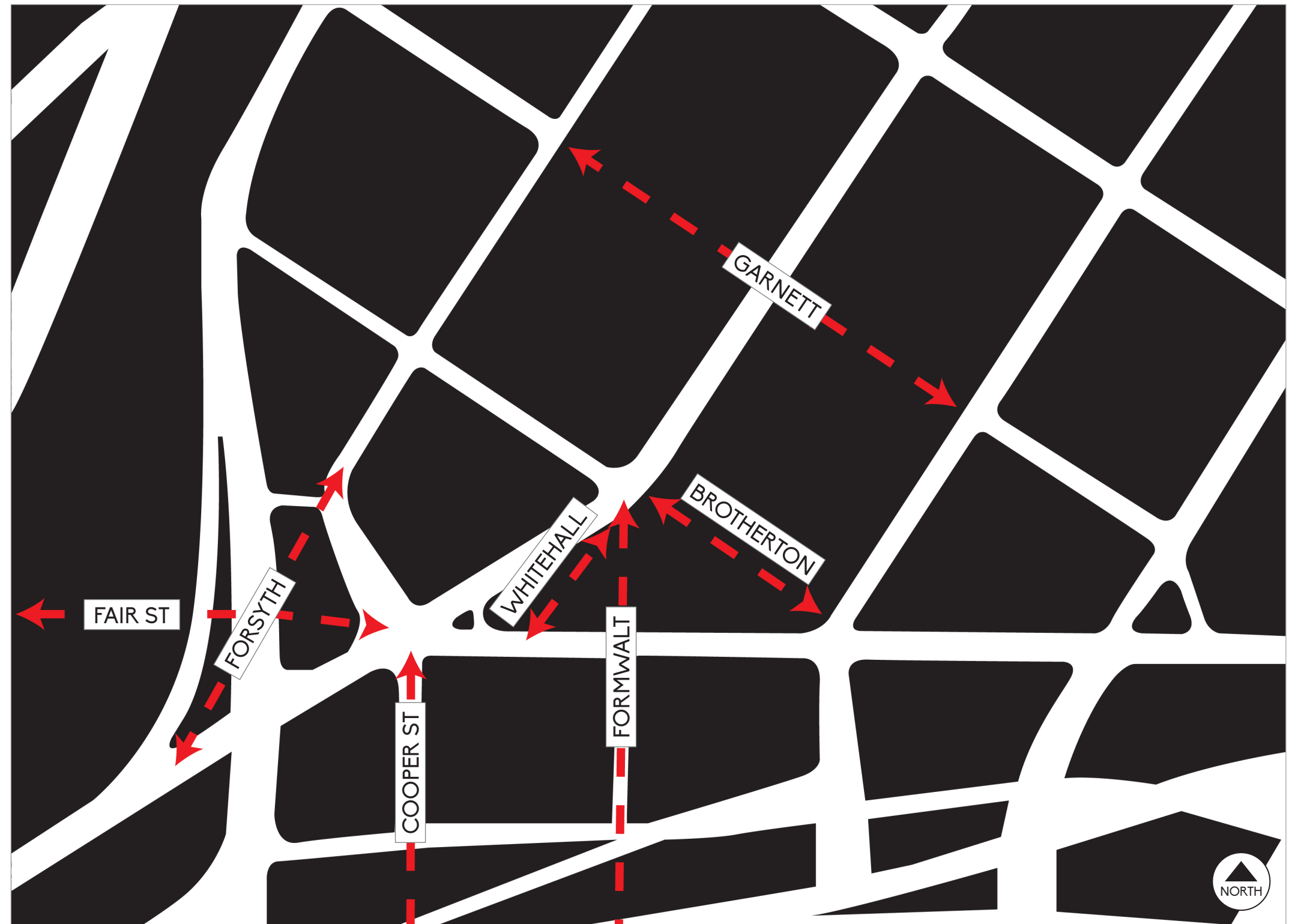


MASTER PLANNING STUDIES

Historic Connections

Master Planning Workshop Themes

- The red arrows indicate former street connections which could be re-established like the Brotherton Street connection through the site
- Transform the shared space between ACDC and Gateway
- Improve fluidity across sites and create a stronger connection between Pryor and Peachtree Streets

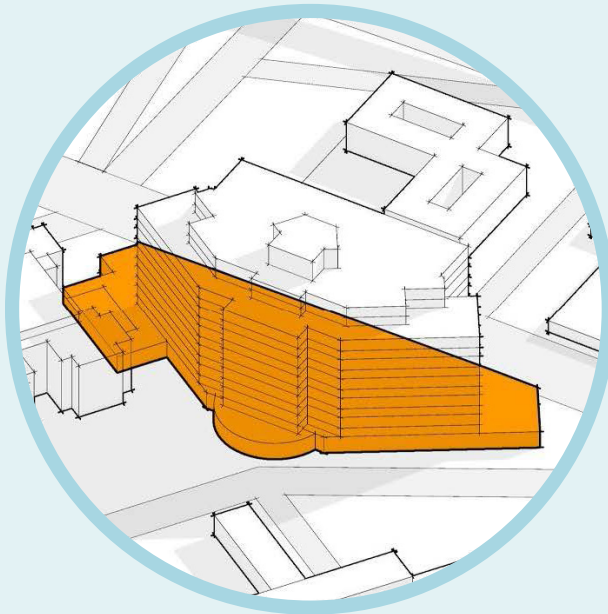




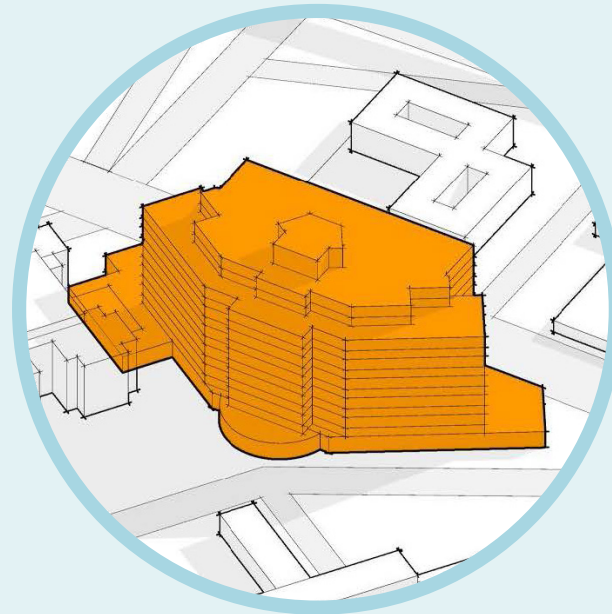
DEVELOPMENT OPTIONS

Building on the 9 Pathways, master planning themes, and a financial analysis, we have prepared four development strategies for the Center for Equity. Two involve repurposing the existing building and two involve demolishing the building.

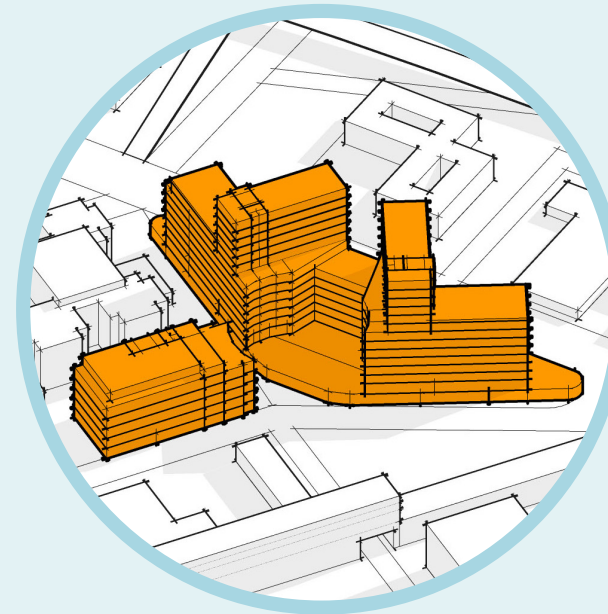
4 DEVELOPMENT OPTIONS



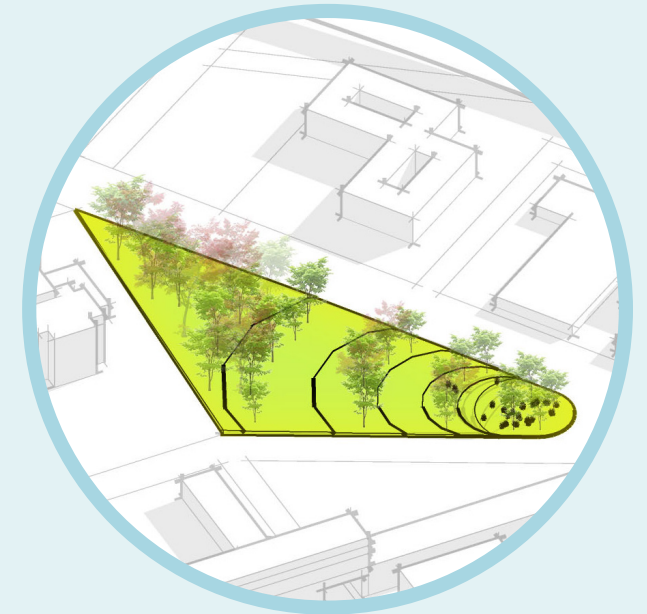
#1:
EQUITY
PODIUM



#2:
DOWNTOWN
ANCHOR

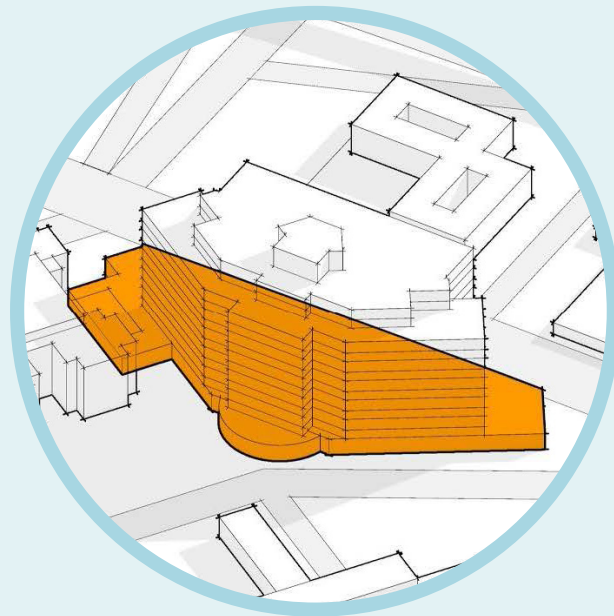


#3:
CENTER
FOR EQUITY
CAMPUS

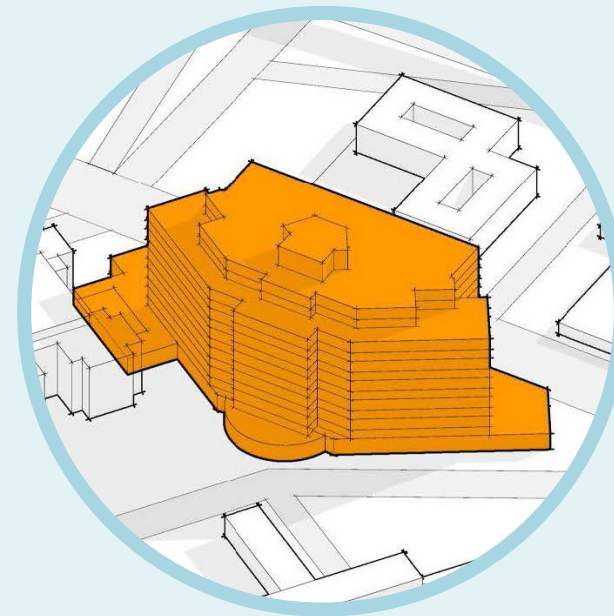


#4:
DISTRIBUTED
EQUITY

2 REPURPOSING STRATEGIES



#1:
EQUITY PODIUM
Minimum Repurposing

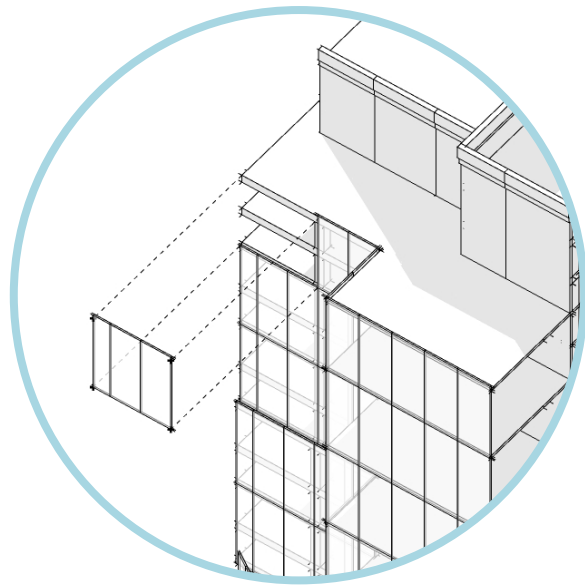


#2:
**DOWNTOWN
ANCHOR**
Full Repurposing

REPURPOSING THE BUILDING // Design Strategies for Transformation

A New Facade and Letting the Light In

The existing building is designed for a single use as a detention center where the main purpose is to isolate. Repurposing it into a building with multiple uses requires integration of spaces and bringing in ample natural light for uses such as housing, social services, and retail. We propose four basic design strategies to support a range of uses that welcome and embrace the Atlanta community.



Replace portions of the existing facade



Cut mezzanine floors to let more light in



Demolish existing interior cells and pod walls



New cross-laminated timber floor mezzanine infill

REPURPOSING THE BUILDING // Design Strategies for Transformation

Replace Portions of the Existing Facade



Removing and replacing portions of the existing precast panel facade with a new window wall system allows for ample light to be let into the building.

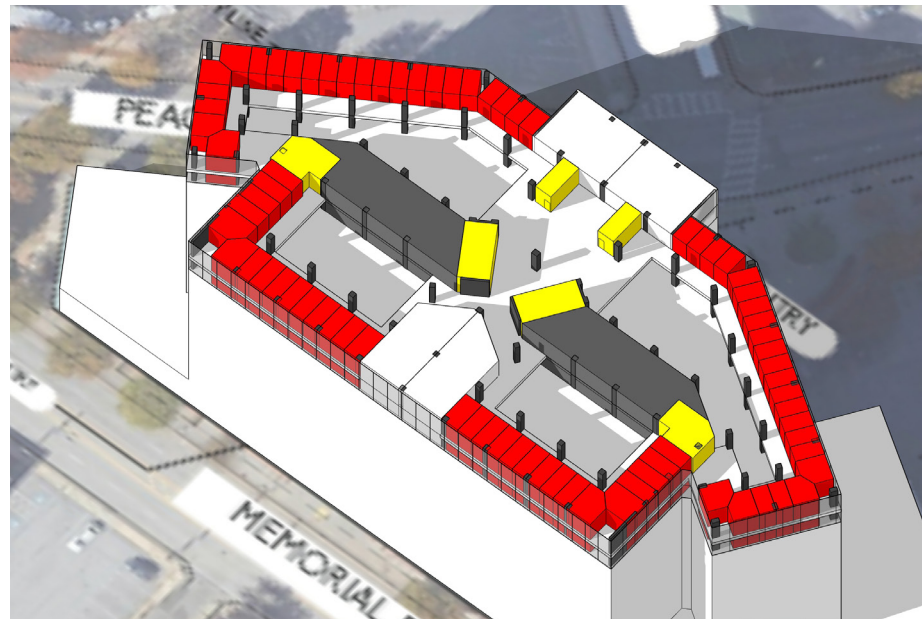
Cut Mezzanine Floors to Let More Light In



Notching out the mezzanine floor in strategic areas brings natural light further back into the deep floor plates of the building.

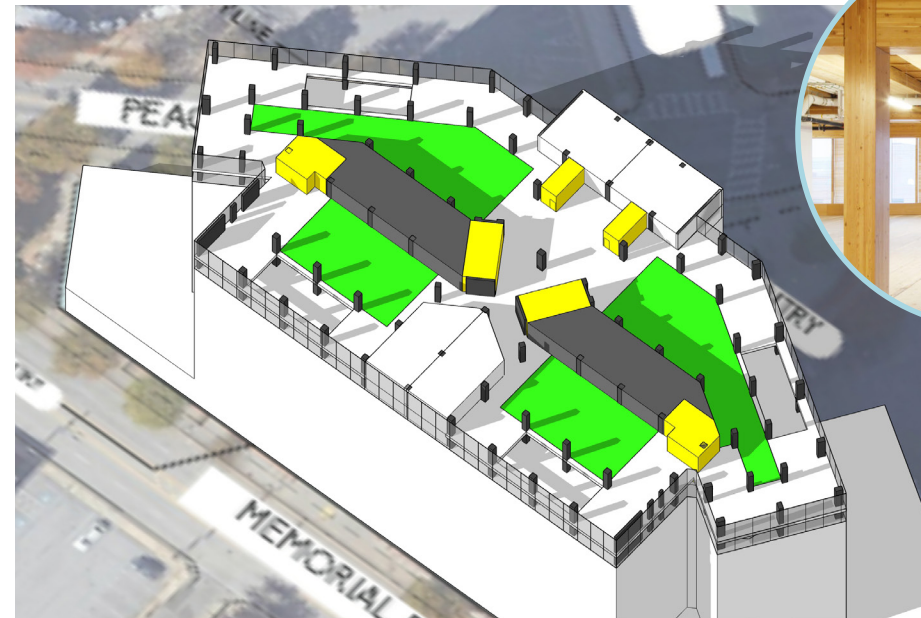
REPURPOSING THE BUILDING // Design Strategies for Transformation

Demolish Existing Interior Cells & Pod Walls



Demolish existing interior cells and pod walls.

New Cross Laminated Timber Floor Mezzanine Infill



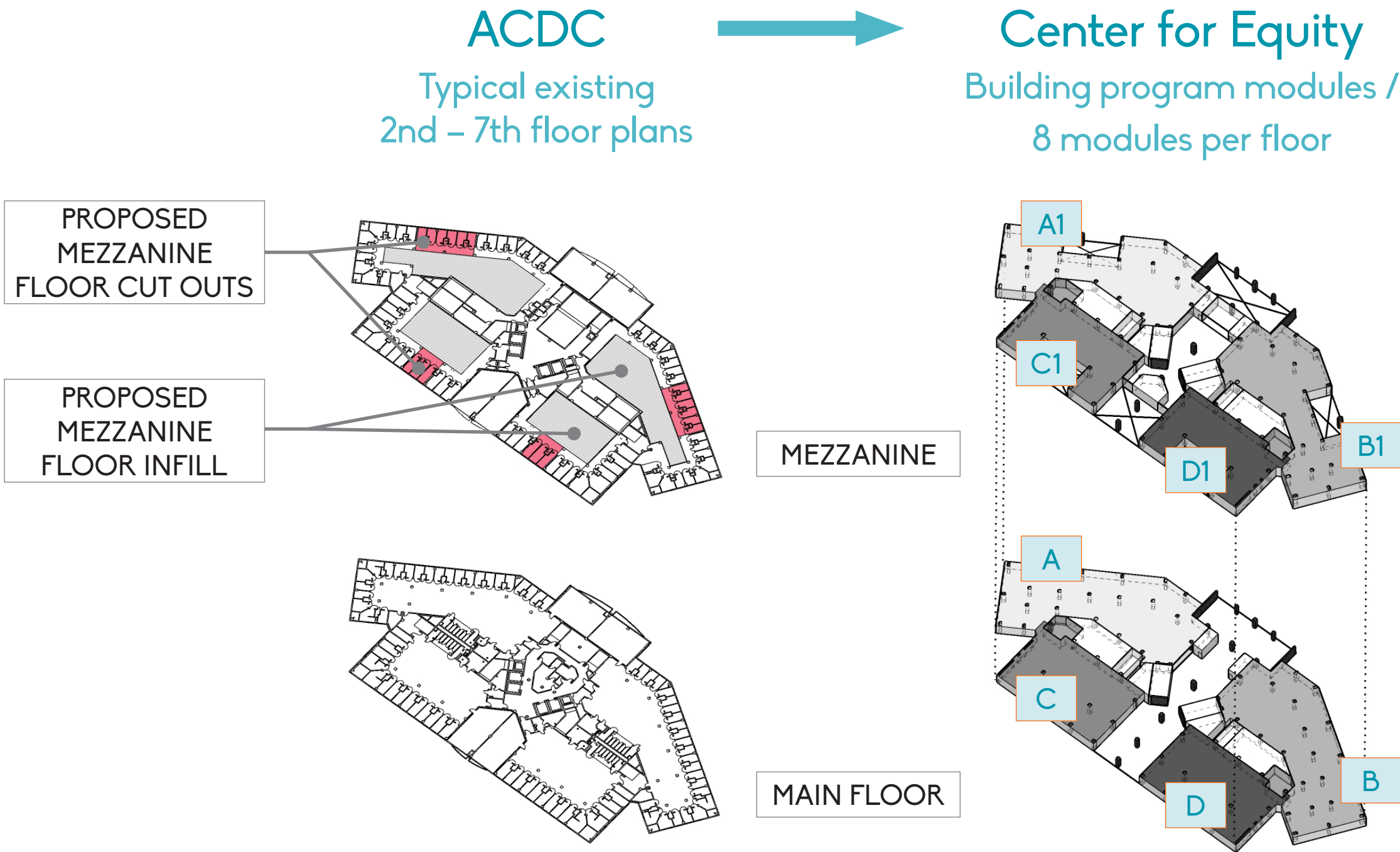
Infilling the existing mezzanine area with a timber floor infill adds floor area back into the floor plate and creates more rentable floor space to makeup for areas where we are cutting away to let light in.

REPURPOSING THE BUILDING // Building Program Module

What is it?

The size and complexity of this project does not lend itself to traditional methods of designating use/program requirements.

In order to strategically allocate 400,000 SQ FT to various uses, modules have been created at the upper levels 2 through 7 where the floor plate naturally divides into 4 quadrants at the main and mezzanine level of each floor.

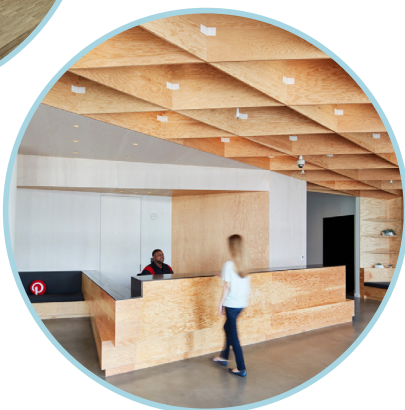


BUILDING PROGRAM MODULE // Essential Design Features

The Hospitality Spine: Indoor Community Spaces

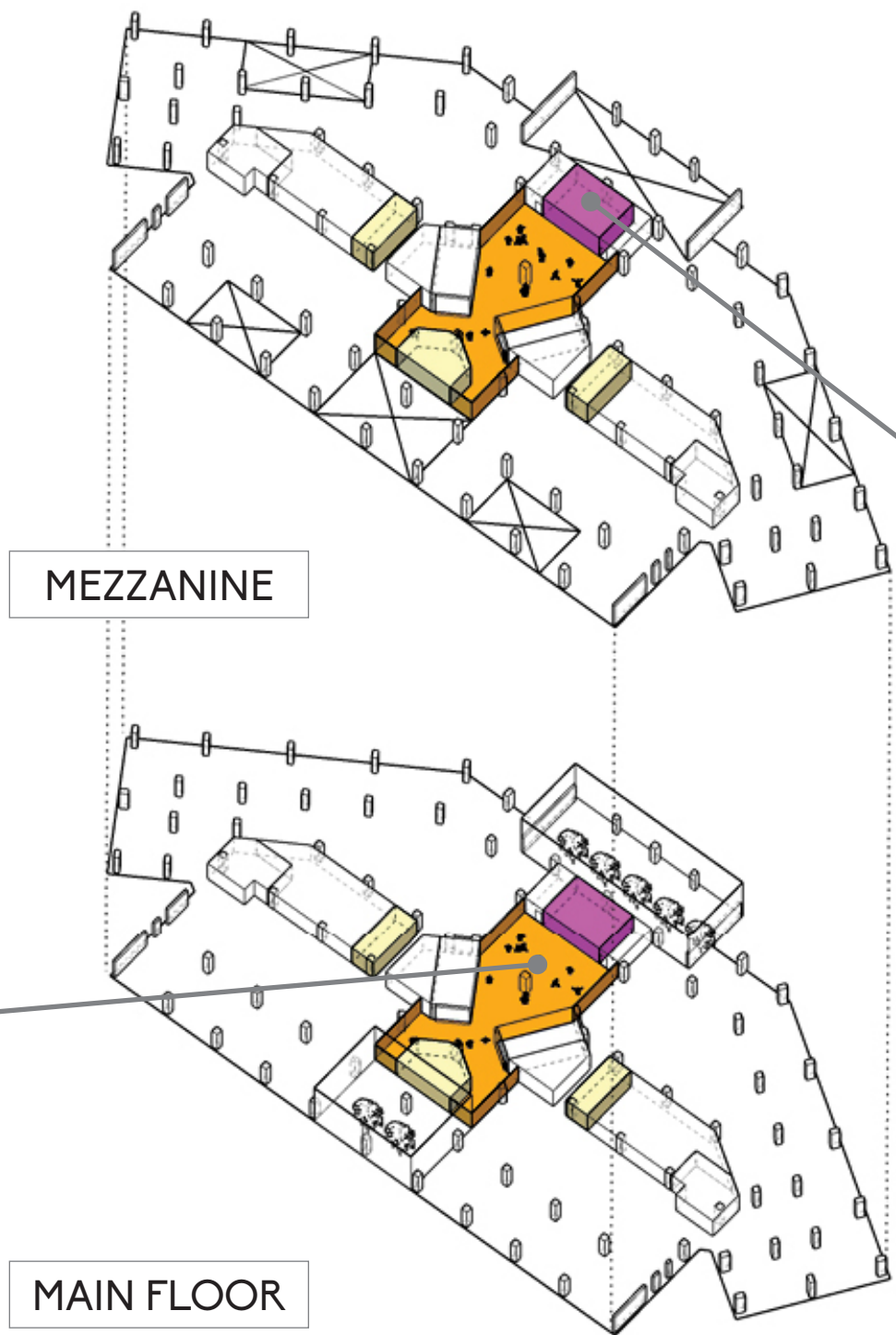
To support the function of the modules, the hospitality spine is one of 3 essential design features provided consistently on each of the upper floors. It occurs right down the middle of the floor plate on the main level and on the newly filled mezzanine level. This space can accommodate a large interior common area which can be used as a reception/welcome space on each level with opportunities for youth and family or childcare areas as needed.

COMMON AREAS /
WELCOME & RECEPTION



MEZZANINE

MAIN FLOOR



YOUTH & FAMILY
SPACE

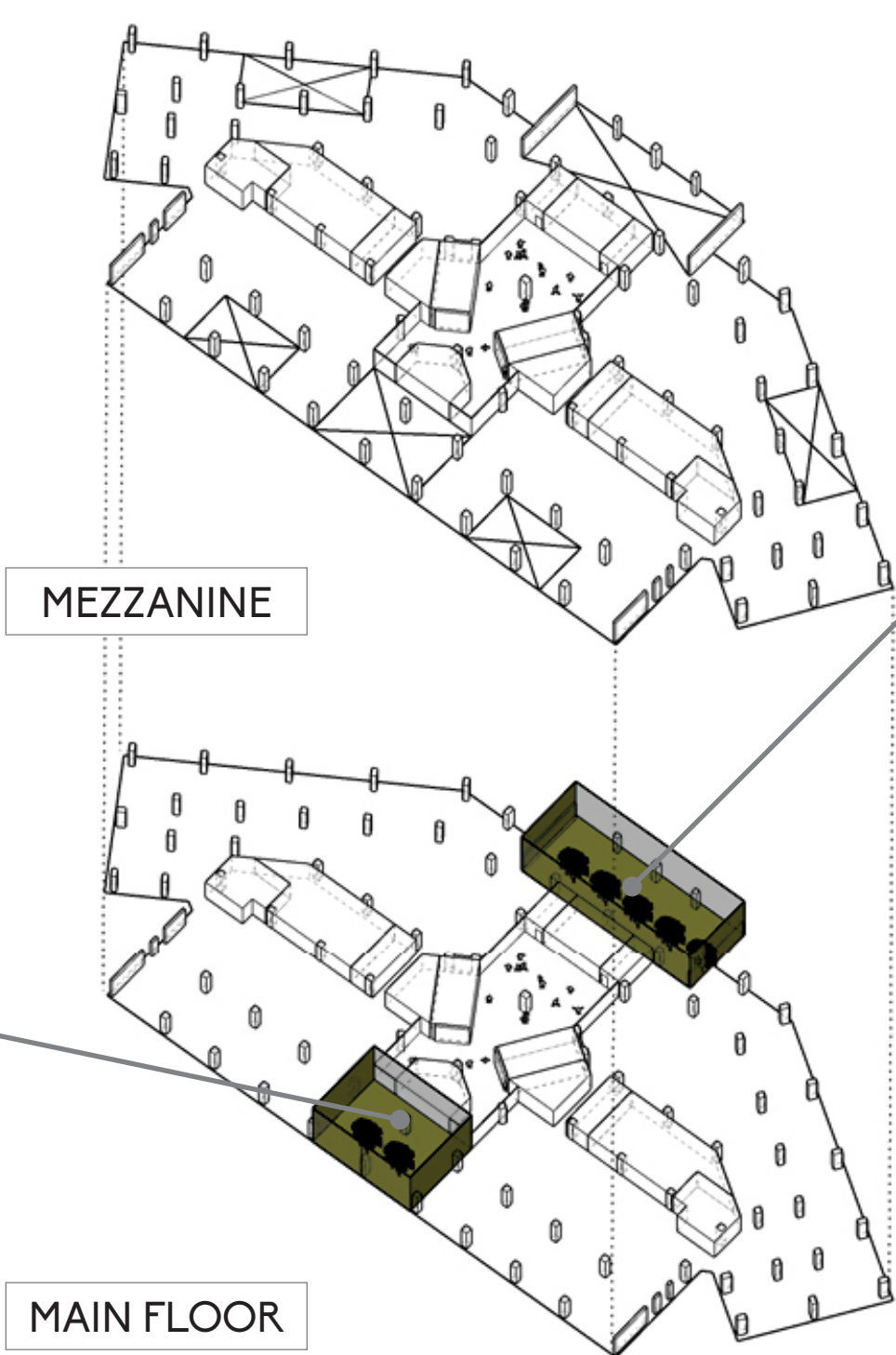


BUILDING PROGRAM MODULE // Essential Design Features

The Hospitality Spine: Embedded Nature

Anchoring the north and south ends of the hospitality spine, there are two opportunities for valuable green space to be embedded on the upper levels of the building. What is currently a dreary open-air court can be transformed into a lively outdoor common area on the north end. The open-air court on the south end is ideally oriented for potential urban farming area in response to the Food Sovereignty Pathway.

OUTDOOR GREEN SPACE /
URBAN FARM GROW AREAS



OUTDOOR GREEN SPACE /
OPEN COMMON AREA



BUILDING PROGRAM MODULE // Essential Design Features

MEP / Vertical Circulation

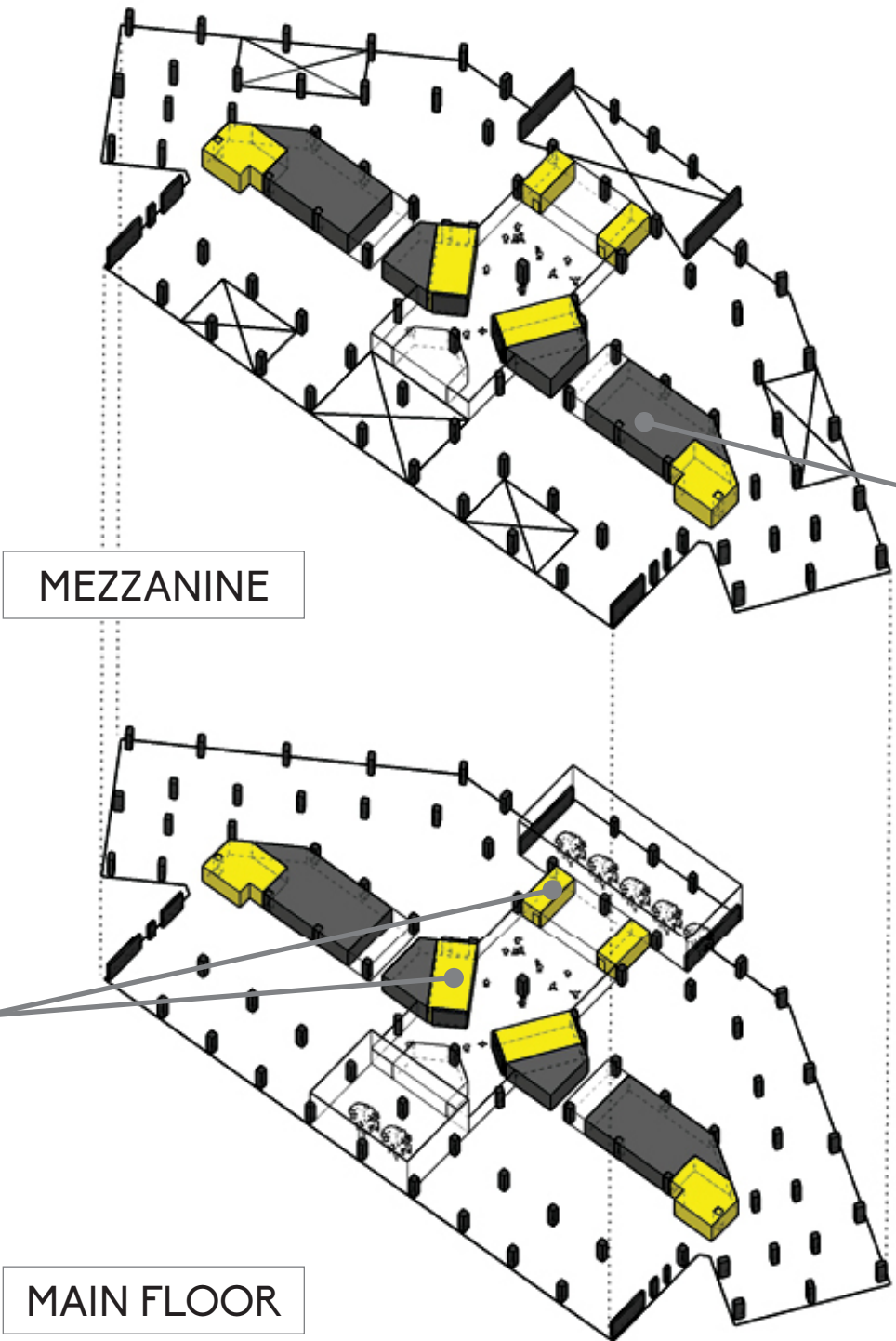
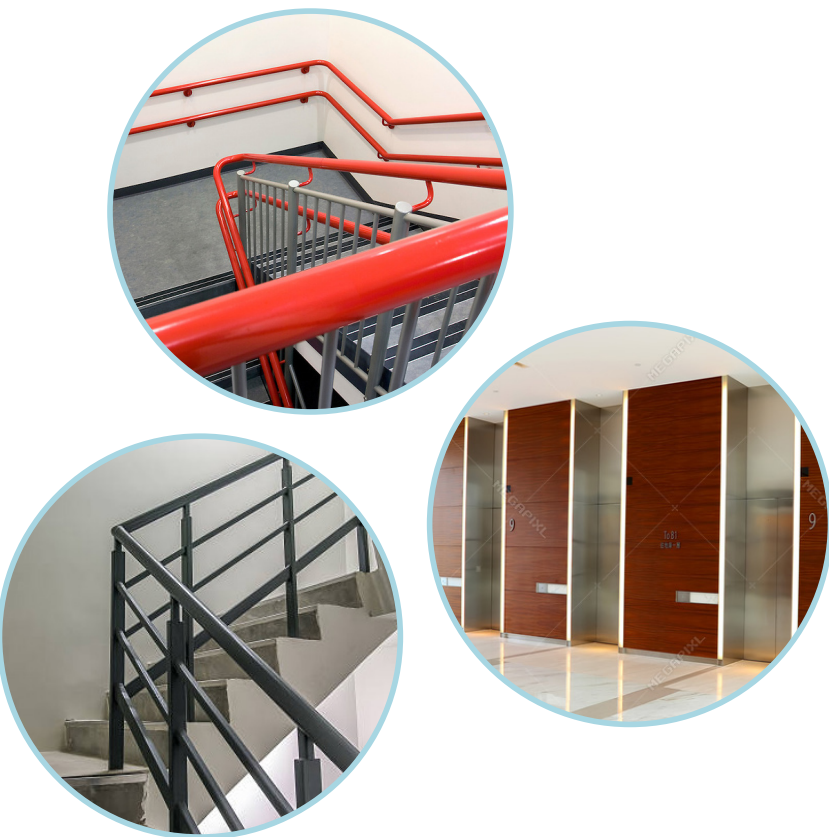
The third design feature is situated perpendicular to the hospitality spine. It consists of essential vertical stair/elevator circulation cores, mechanical/electrical rooms, and plumbing service areas at each level.

STAIRWELLS & ELEVATORS

MEZZANINE

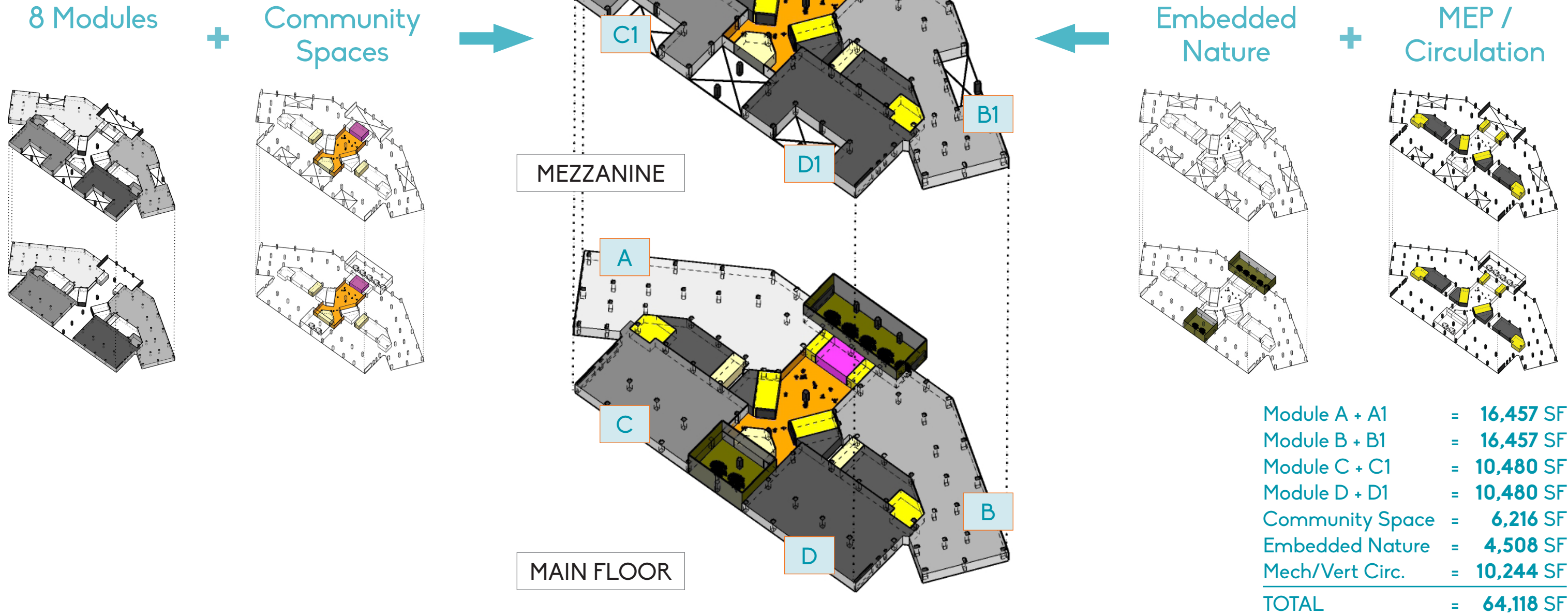
MAIN FLOOR

MECHANICAL/PLUMBING
& ELECTRICAL SPACES

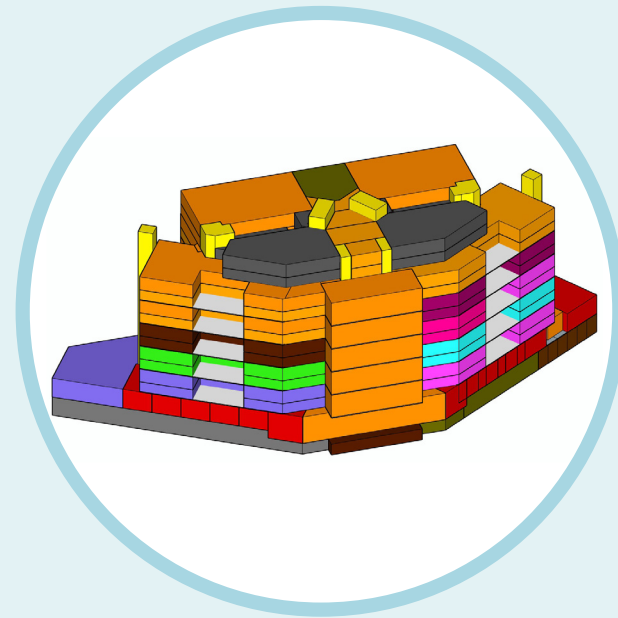


BUILDING PROGRAM MODULES // A Pathway Programming Strategy

The modules combine the four design strategies for transformation along with its essential design features resulting in a flexible programming strategy that breaks up the project into manageable chunks to be configured, evaluated, refined, and reconfigured into the project.



EXPRESSING THE PATHWAYS



BUILDING PROGRAM MODULES

CENTER FOR EQUITY // Village Pathways & Intersections

A New Kind of One-Stop Shop

In order to facilitate an iterative design process, the 9 Pathways can be expressed within the modules to meet a variety of programming opportunities. Each Pathway provides an opportunity for its particular program components to be designed within a module.



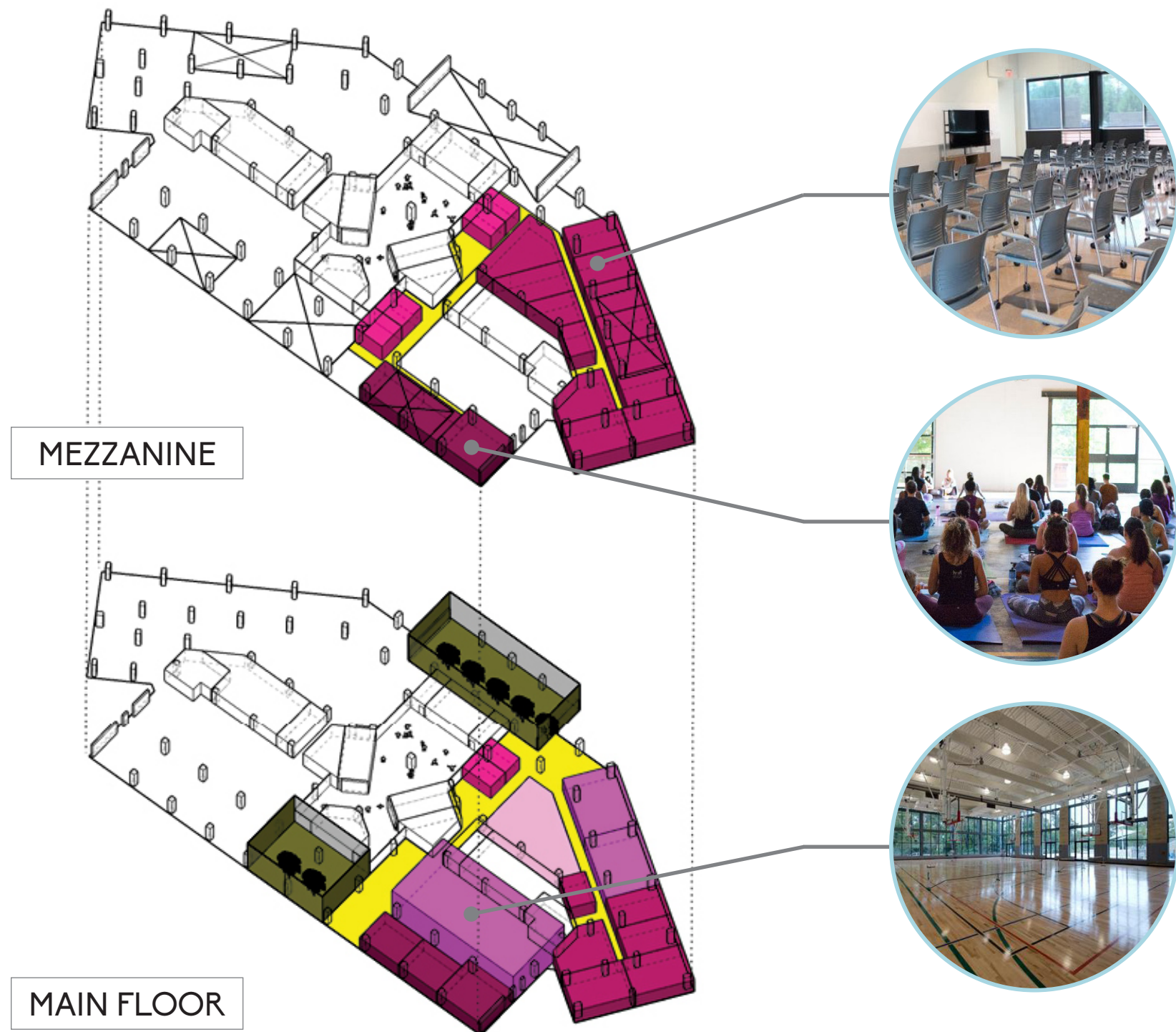


PATHWAY 1 // Community Hub

A priority program was a community hub. This Pathway will be designed with common spaces found in a community hub such as large multi-purpose rooms, various sizes of meeting rooms, and event spaces that can be rented out. These components and their sizes are based on precedent research for similar spaces.

Sample Components

- (6) Admin Offices / Staff Areas
- (19) Classrooms / Community Meeting Spaces / Labs
- (3) Dance / Yoga / Group Exercise Rooms
- (1) Large Multipurpose Event Space
- (3) Workout / Equipment Rooms
- (1) Library Resource Area



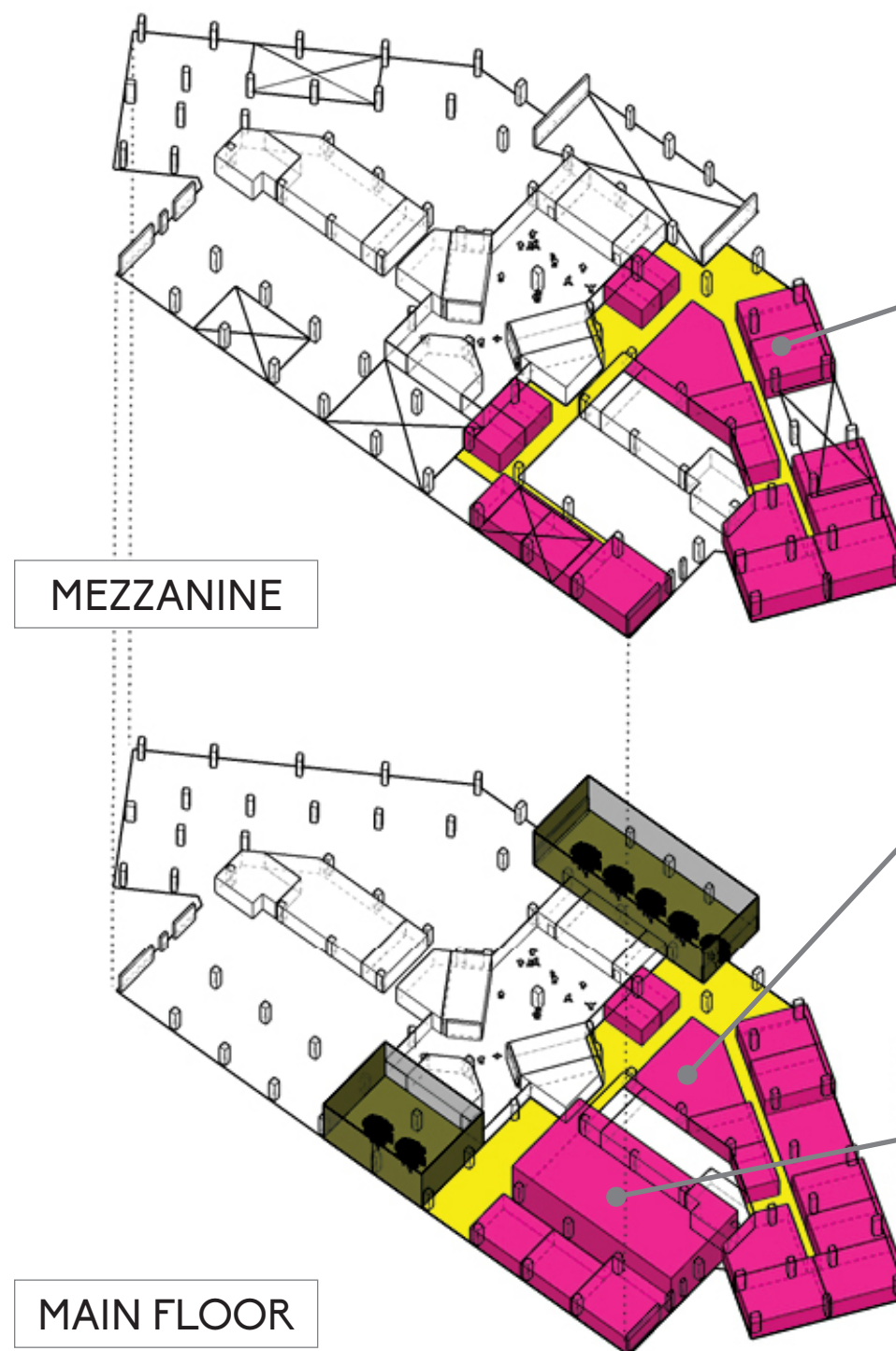


PATHWAY 1 // Community Hub — Childcare

A Pathway could occupy one or two modules or it could take up four to eight modules depending on the type of program components it needs. Childcare is another community need which can serve as a large component of the community hub.

Sample Components

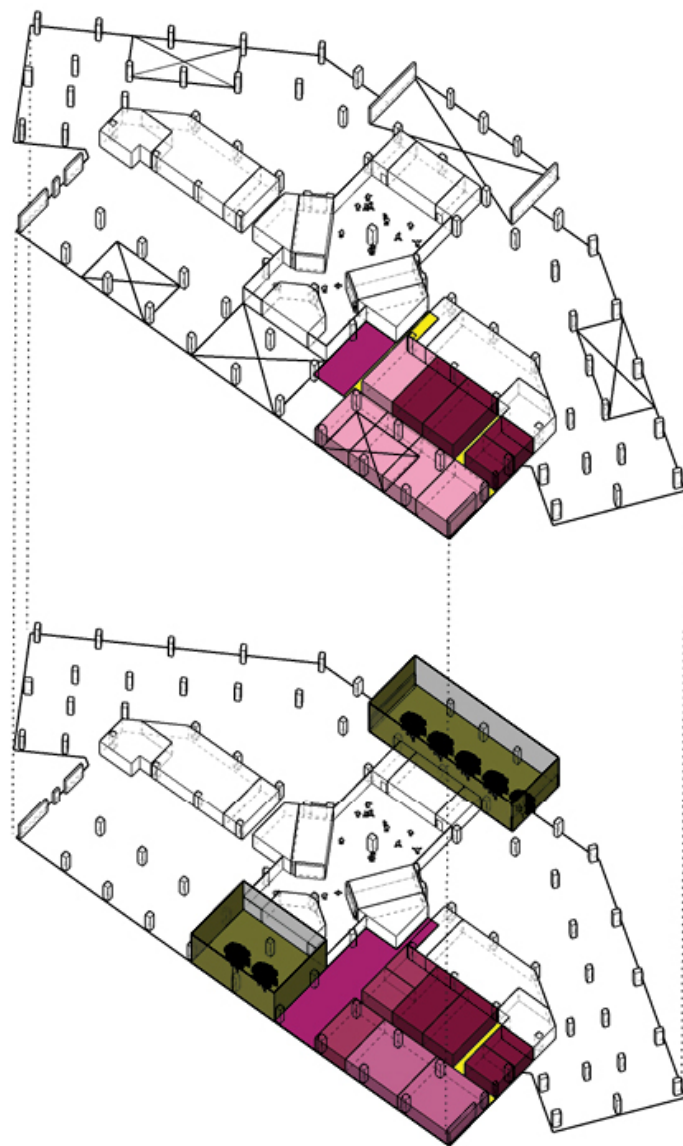
- (6) Staff & Parent Areas
- (12) Classrooms
- (1) Library Resource Area
- (2) Indoor Play Areas
- (1) Large Multipurpose Room
- (6) Multipurpose Rooms
- (6) Labs / Art Rooms
- (2) Food Prep Areas
- (2) Outdoor Play Areas



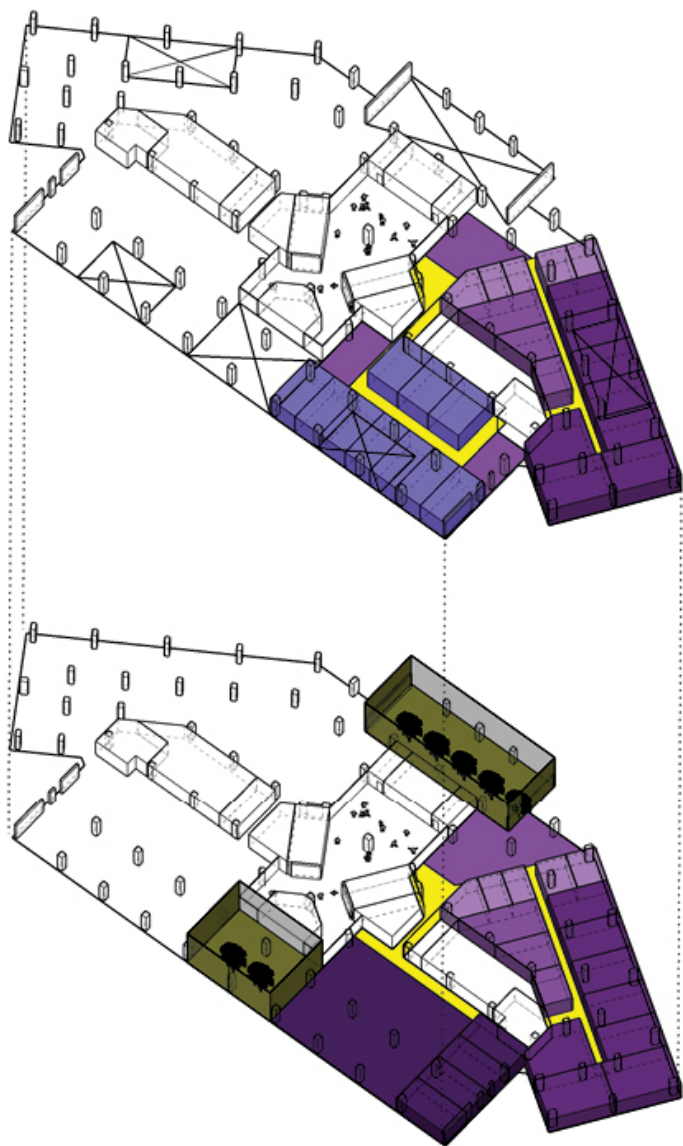
PATHWAYS 2 – 7

The remaining pathways were developed similarly with their specific program components. The sizes of these components and the adjacencies would all need to be refined by prospective tenants of the building.

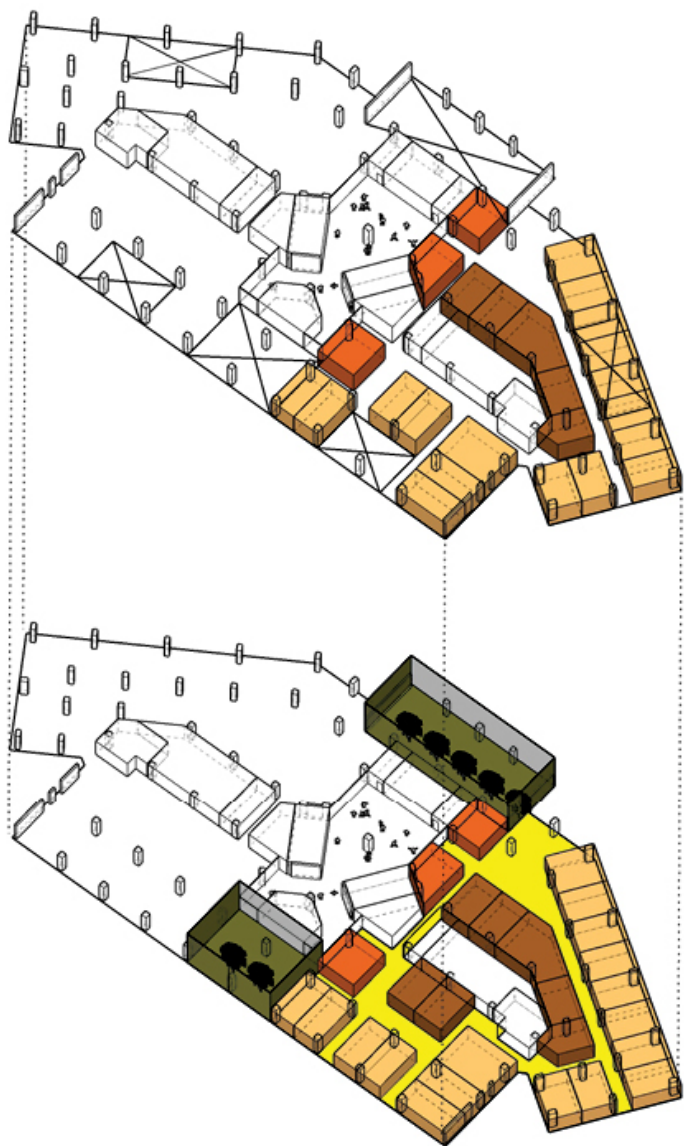
Access to Justice



Healthy Mind & Body



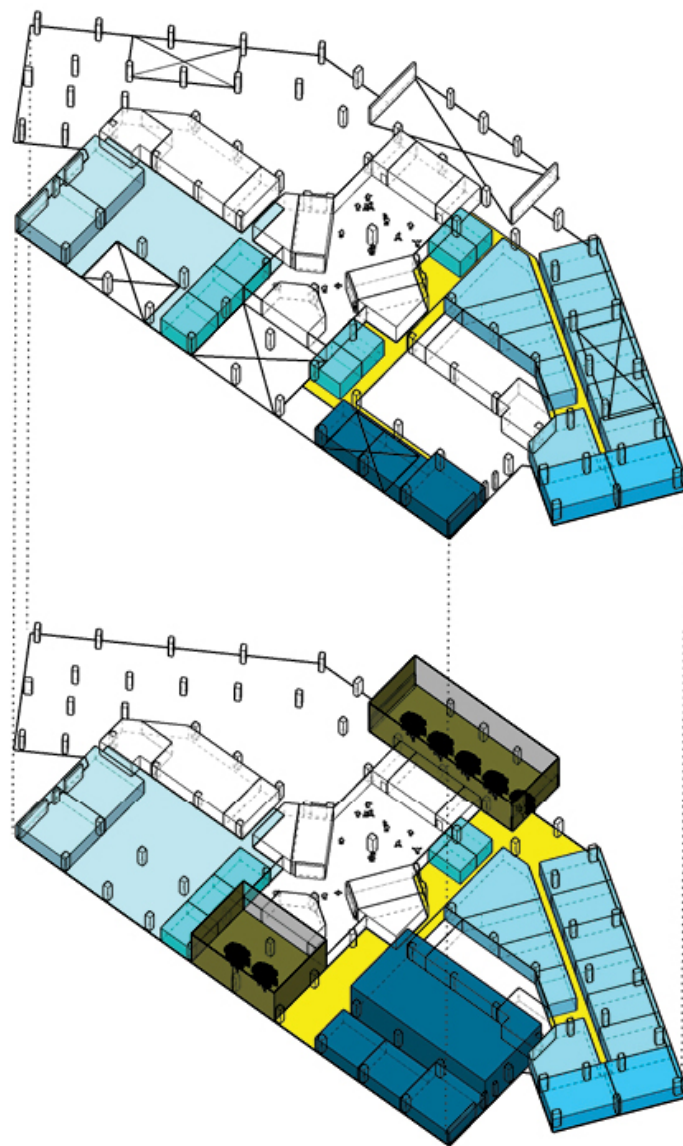
Home & Hospitality



PATHWAYS 2 – 7

Modules allow for exploration of programming options so that prospective tenants have a strategy to see themselves and their program in the building.

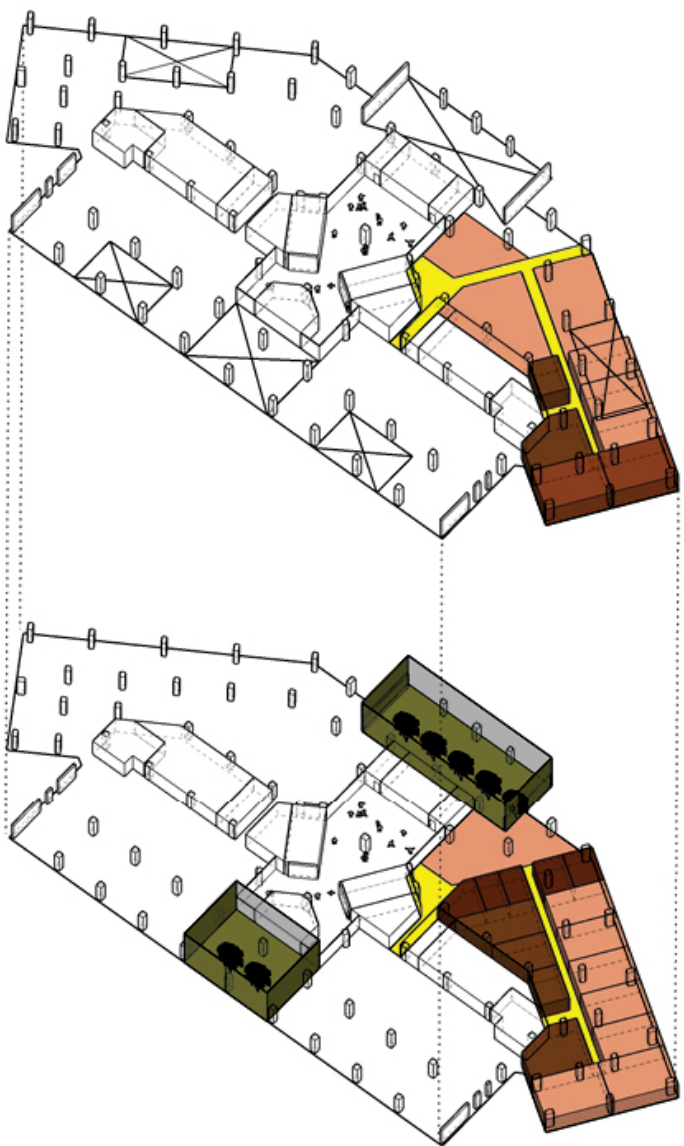
Arts & Culture



Knowledge Building

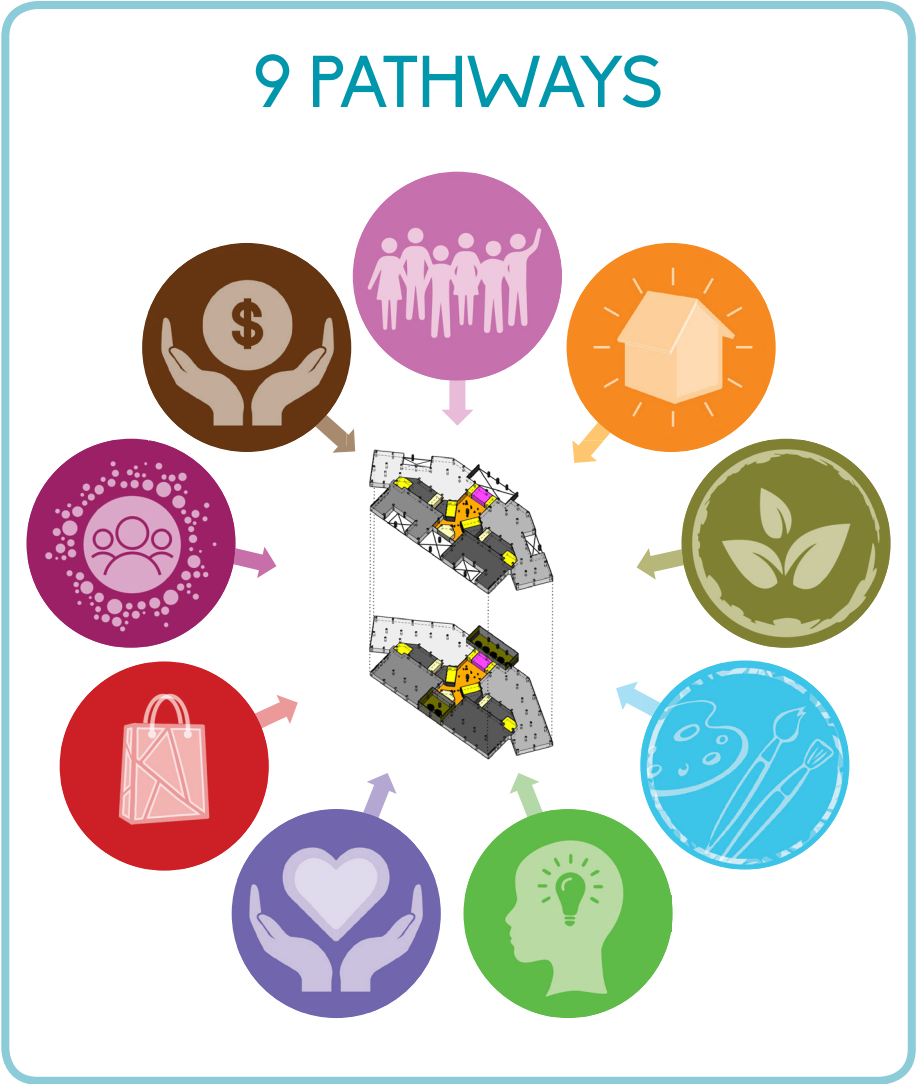


Financial Freedom



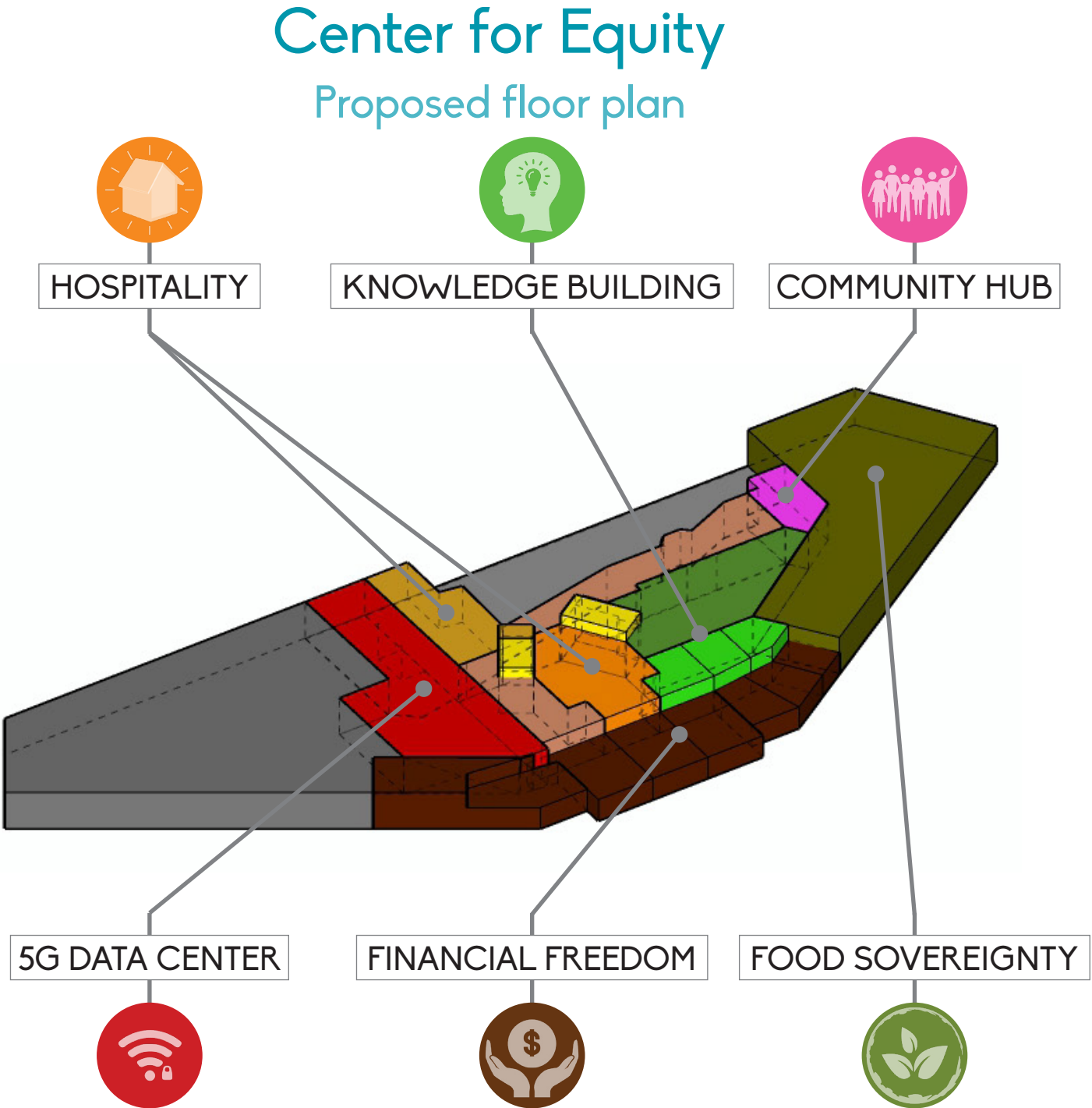
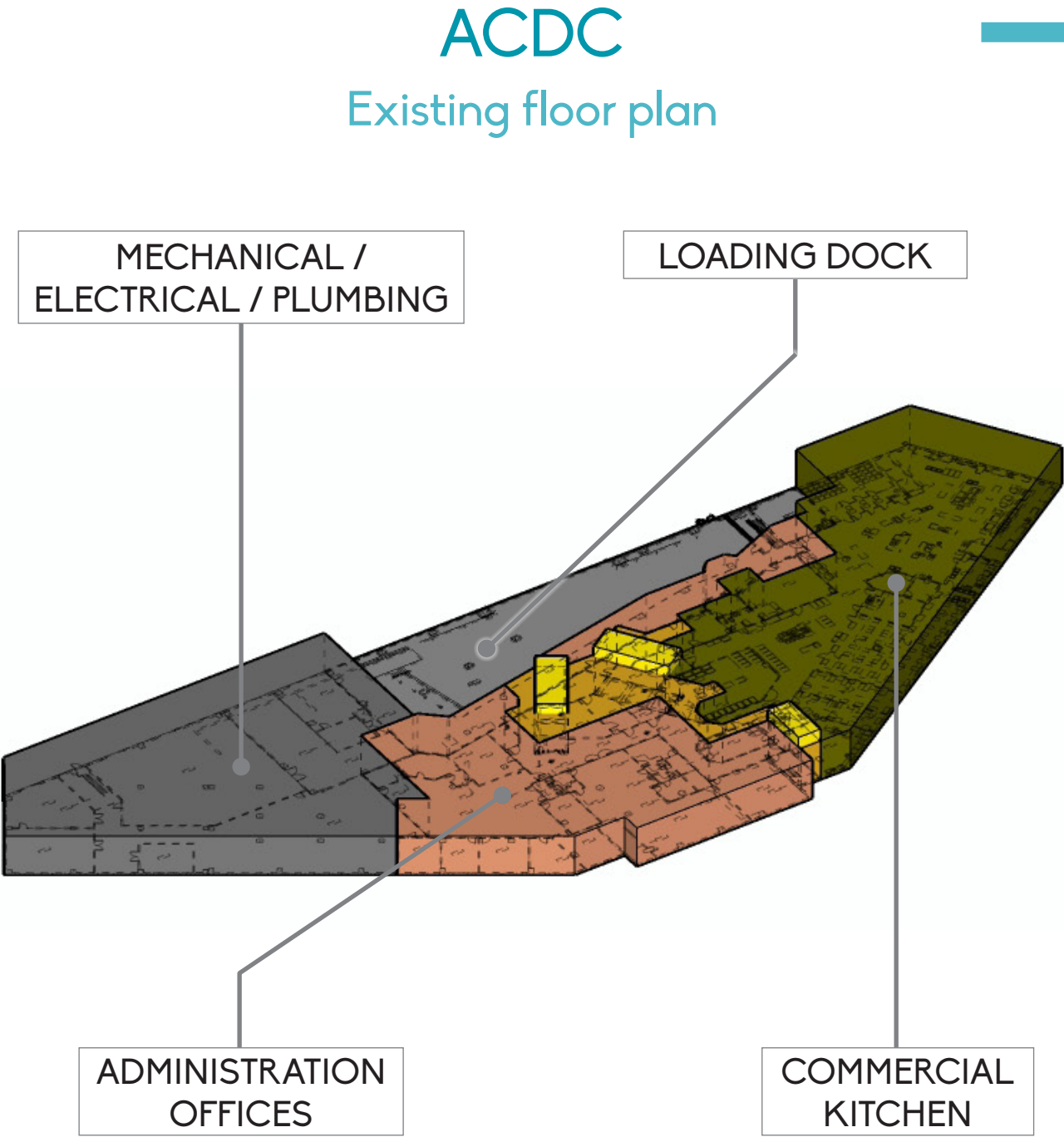
CENTER FOR EQUITY // Village Pathways & Intersections

A New Kind of One-Stop Shop



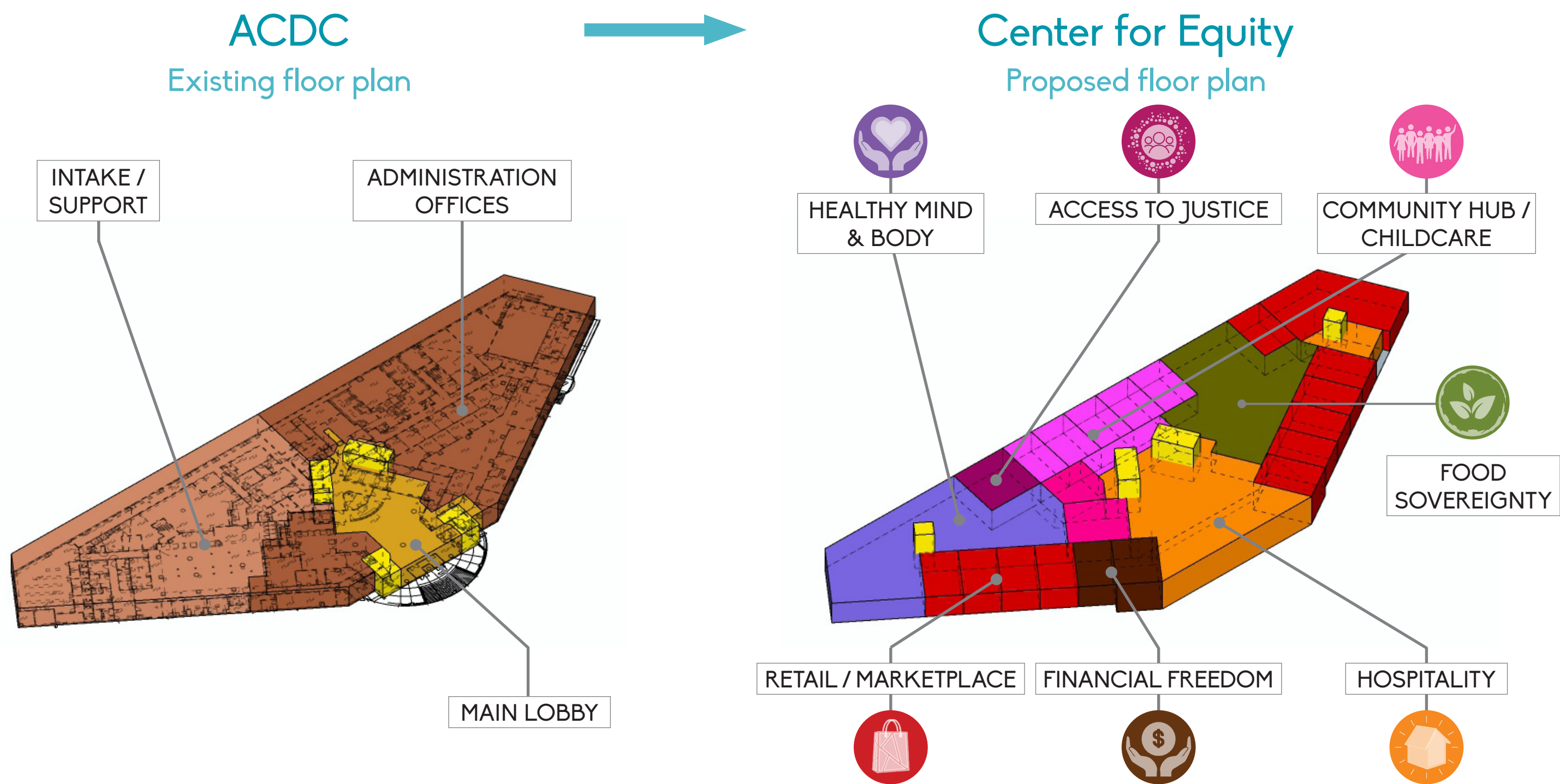
PATHWAY PROGRAMMING // Transforming the Basement Level

The existing basement and ground floor levels have different floor plan configurations but the Pathways can still be applied to these levels and transform them as well, linking a food incubator program to the existing commercial kitchen or vocational learning programs focused on the buildings mechanical systems located on this level or centered around a new 5G data center.



PATHWAY PROGRAMMING // Transforming the Ground Level

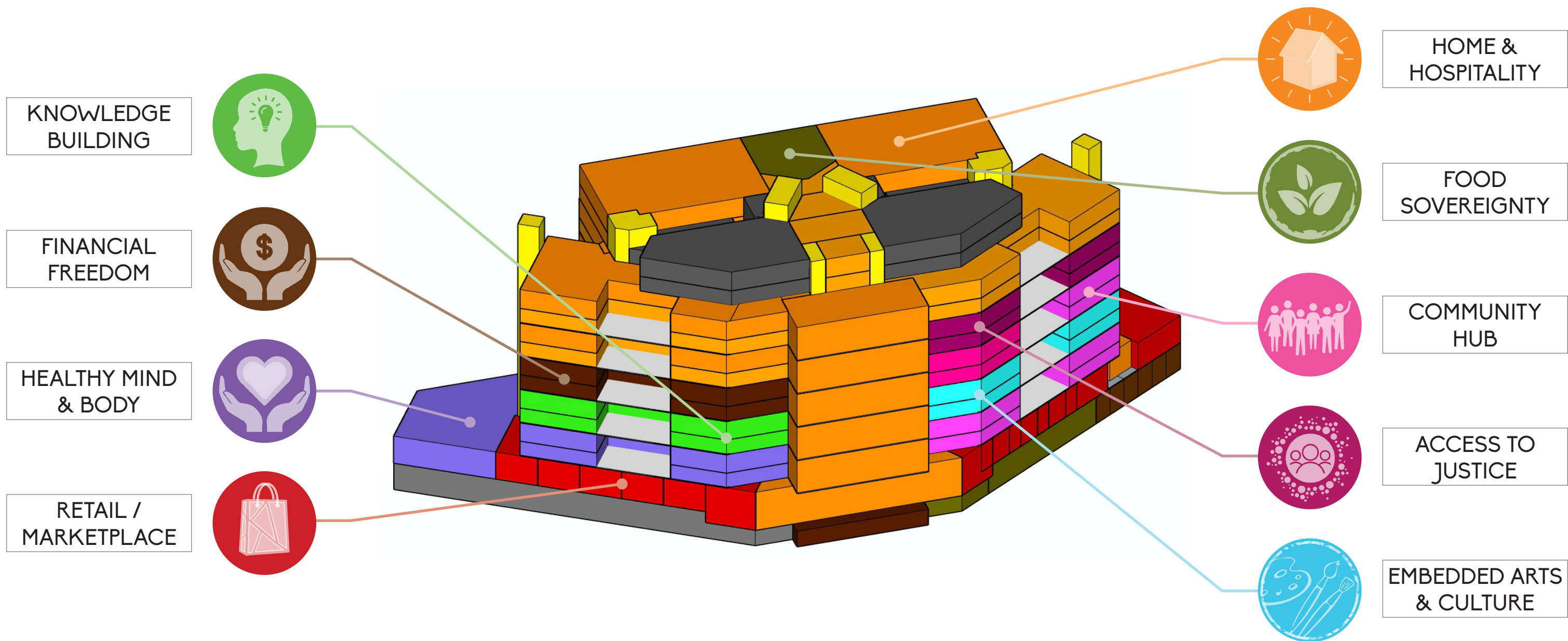
The transformation of the ground floor is most critical to this success of the Center for Equity. The application of the Pathways offers opportunities for a trauma-informed welcome center activated with a food market or grocery, access to behavioral health, and a credit union, all anchored with daily needs retail, child care, and community gathering spaces.



CENTER FOR EQUITY // Village Pathway Programming

A New Kind of One-Stop Shop

The Pathway programming modules can transform the entire building.





PATHWAY 1 // Community Hub

At the module level of analysis, the market analysis/conditions can be taken into account.

Sample Components

- (6) Admin Offices / Staff Areas
- (19) Classrooms / Community Meeting Spaces / Labs
- (3) Dance / Yoga / Group Exercise Rooms
- (1) Large Multipurpose Event Space
- (3) Workout / Equipment Rooms
- (1) Library Resource Area

Financial Summary

Modules B & D	26,937 SF
Base Building Costs	\$182 / SF
Tenant Improvement	\$127 / SF
Total Development Costs	\$11.2M
Rental Income	\$12 – \$18 / SF
Coverage: Operations	1.7x – 2.6x
Coverage: Total Costs	1.2x – 0.8x



BUILDING PROGRAM MODULES // How much do they cost?

Financial Analysis

1 DEVELOPMENT ASSUMPTIONS

- Square Footage
- Time: Pre-development, Construction, Occupancy

Questions & Analysis

- Are the areas adequate for the programming?
- Time is money. How long will development take?

3 SOURCES OF CAPITAL

- Debt
- Equity / Site Contribution

Questions & Analysis

- What are the possibilities/limits of borrowing?
- If there is financing gap, how can it be filled?

2 USES OF CAPITAL

- Base Building Development Costs
- Module's Tenant Improvements
- Financing Costs

Questions & Analysis

- What is the cost of a delivering a “warm shell”
- How much is each Tenant Improvement package
- Could tenants pay for their own build-outs?

4 POST-COMPLETION OPERATIONS

- Rental Income
- Operating Costs

Questions & Analysis

- Does the module cash flow cover operations?
- Does the module cash flow cover total development costs?

#1: MINIMAL REPURPOSING // Equity Podium

Finance & Development

Stacking diagrams illustrate how the modules can be configured throughout the entire building. In the minimal repurposing strategy only a portion of the building is programmed as the Center for Equity and supported with complimentary market rate uses in the remainder of the building.

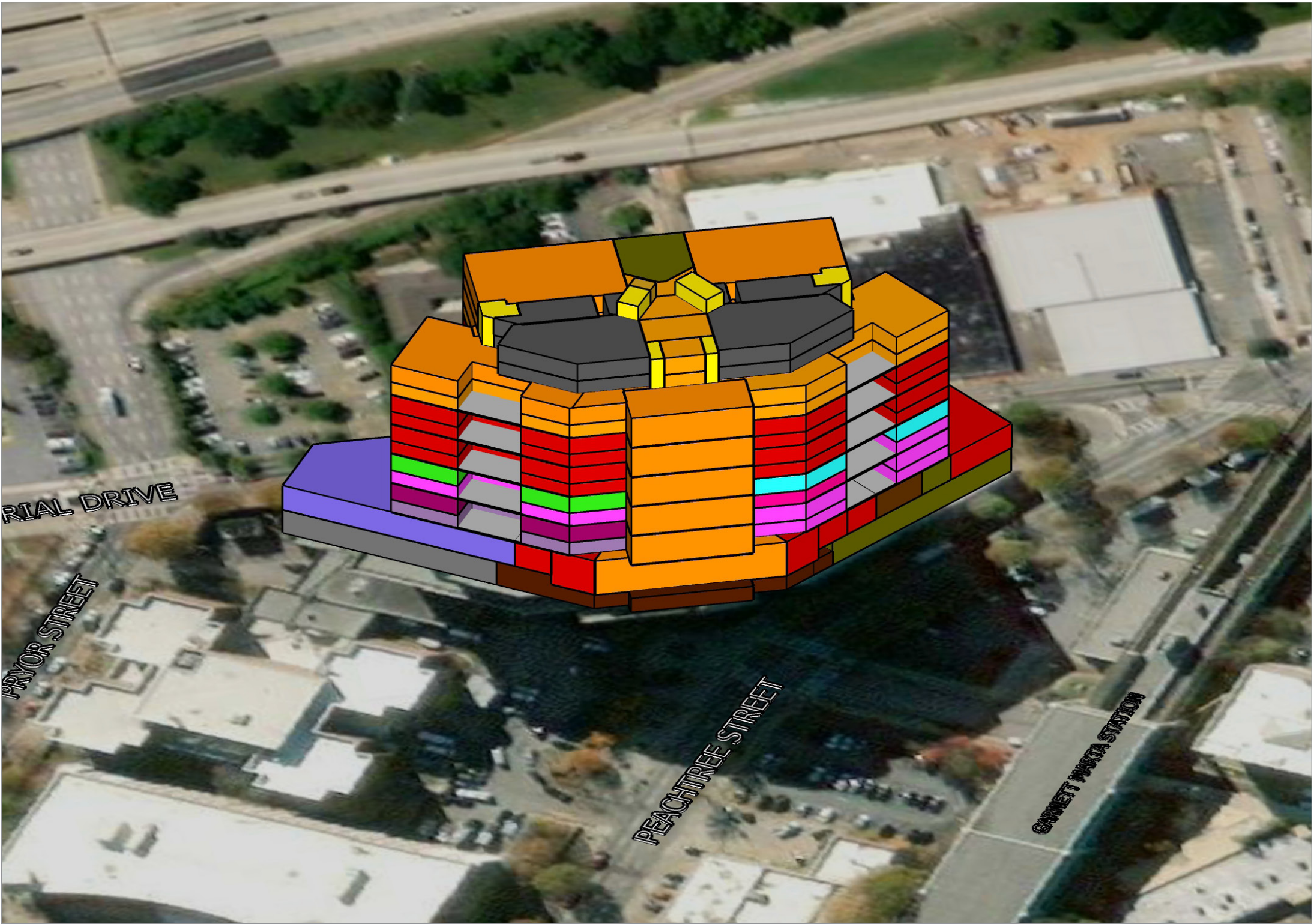
Strategy Narrative

- Limit construction cost
- Reduced development period
- Strategic demolition
- Facade replacement
- Split tenancy — Center for Equity and non-center tenants
- Attract non-center tenants with complementary uses
- Positive cash flow from non-center area is used to finance development of the Center.
- Preserve option to expand Center in a second phase
- Tenant fit-out costs = \$77 – \$177 / SF

Hard Cost Budget

Center for Equity SF	266,000 SF
Total SF	518,000 SF
Base Bld. Hard Costs*	\$65 – \$70M
Tenant Fit-Out Costs	\$20 – \$47M

* Includes core and shell base building costs, but does not include soft costs and financing costs.



#2: FULL REPURPOSING // Downtown Anchor

Finance & Development

In the full repurposing strategy the entire building is programmed as the Center for Equity. The percentages of the Pathways shown in the following stacking diagrams is driven by community engagement results and real estate market study.

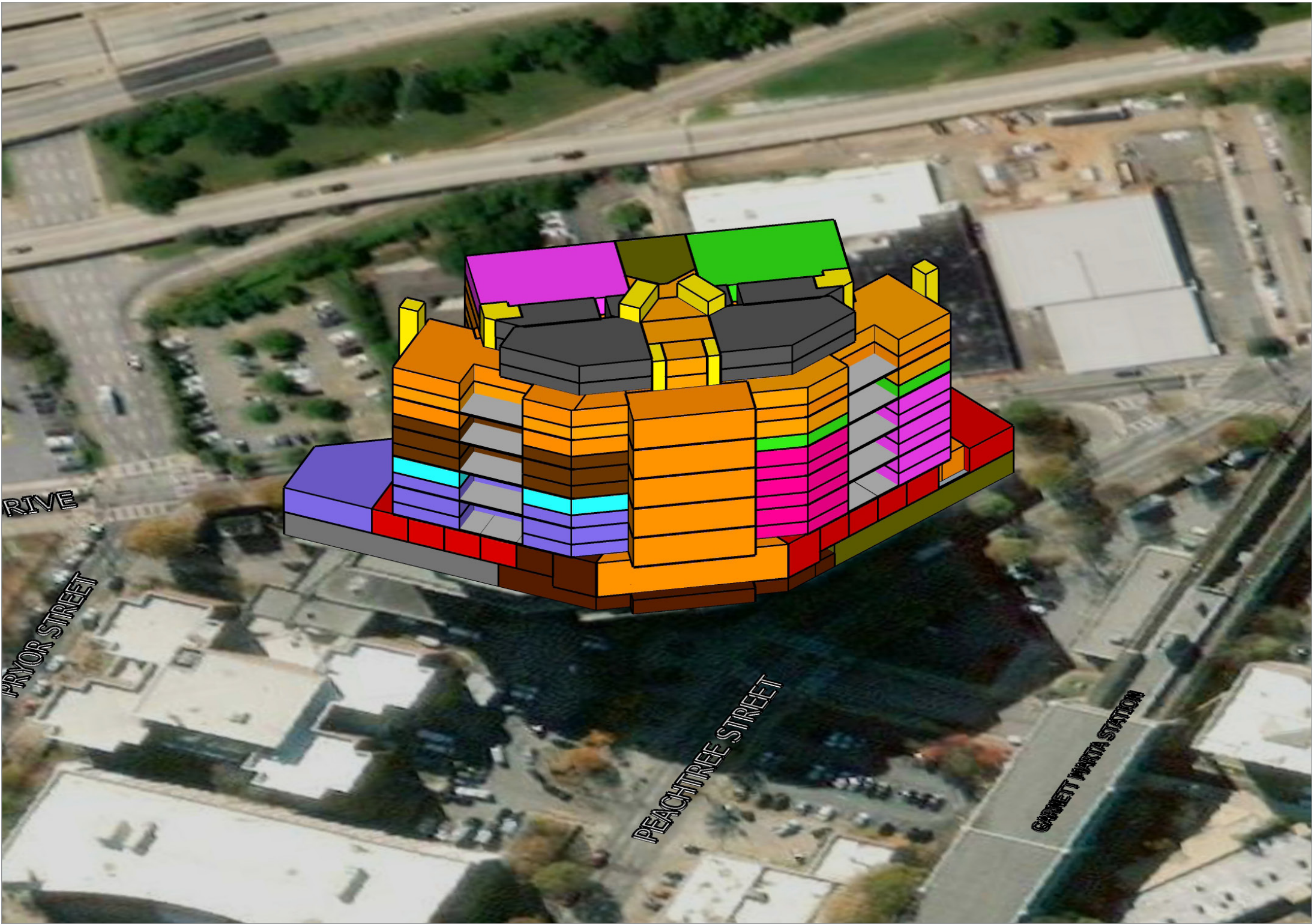
Strategy Narrative

- Incorporation of all desired programmatic uses
- Catalytic project for South Downtown
- The change of use carries complexity and increased contingencies (time and money)
- Anticipated development costs and uses create a financing gap
- Creative financing structures can cover some development costs
- A bold project vision can attract additional resources (strategic partnerships, philanthropy)
- Tenant fit-out costs = \$77 – \$177 / SF

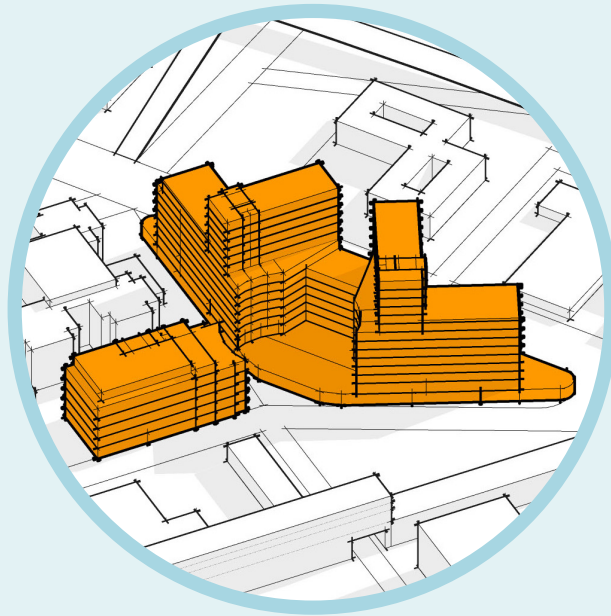
Hard Cost Budget

Center for Equity SF	369,000 SF
Total SF	518,000 SF
Base Bld. Hard Costs*	\$65 – \$70M
Tenant Fit-Out Costs	\$28 – \$65M

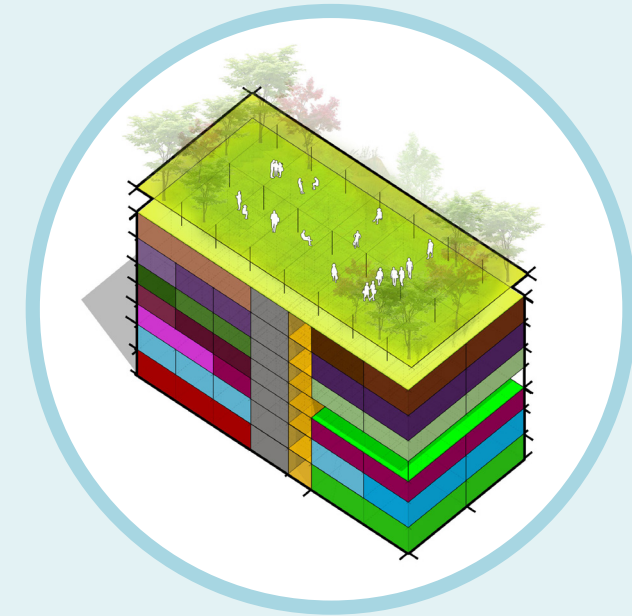
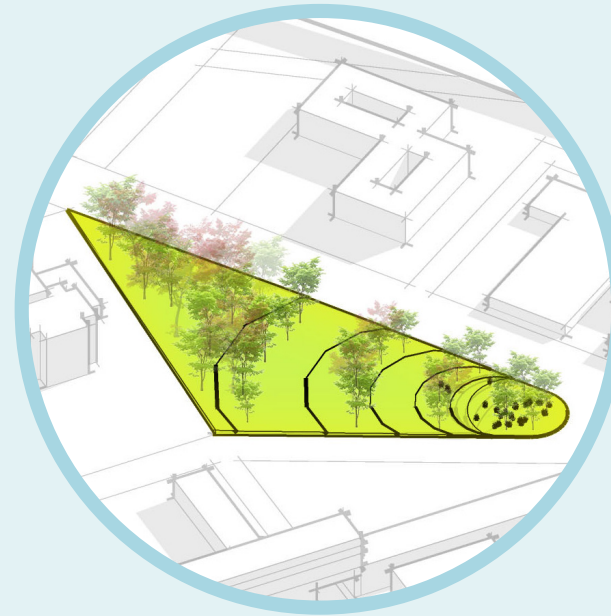
* Includes core and shell base building costs, but does not include soft costs and financing costs.



2 NEW BUILD STRATEGIES

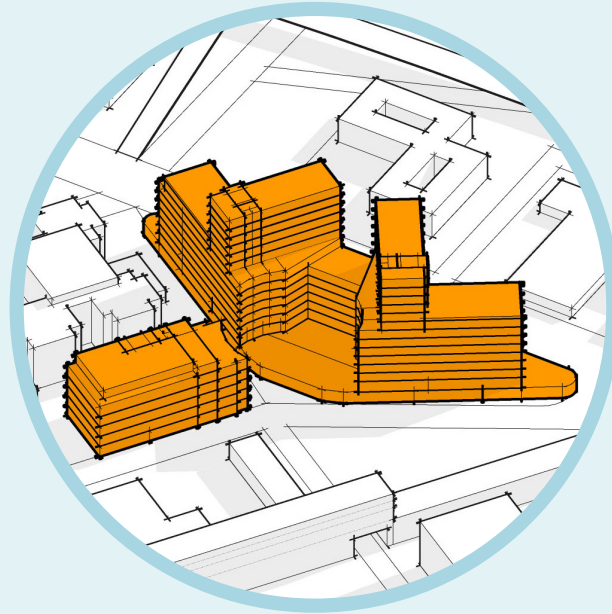


#3:
CENTER FOR
EQUITY CAMPUS



#4:
DISTRIBUTED
EQUITY

NEW BUILD STRATEGY #3

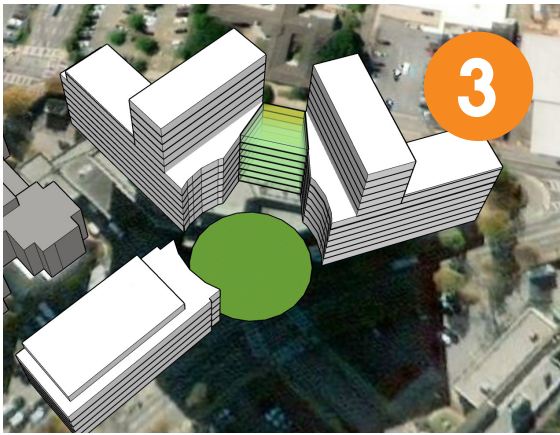
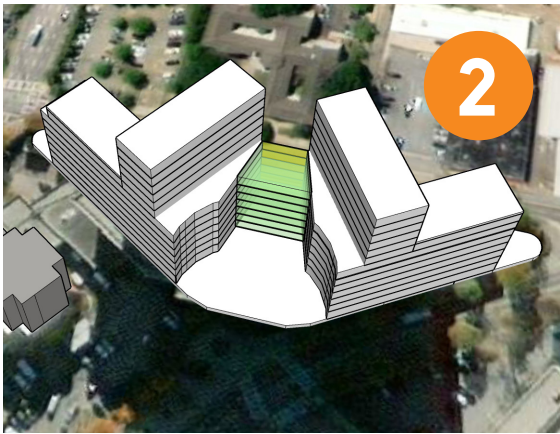
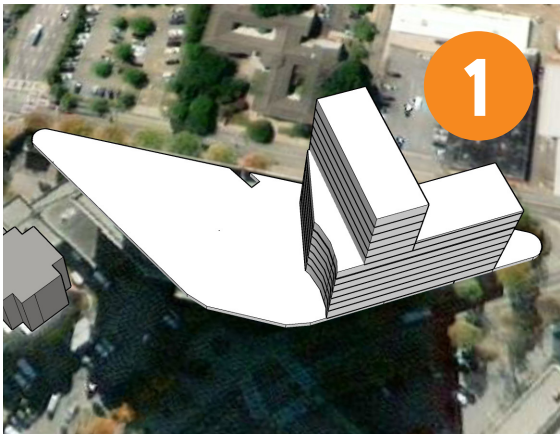
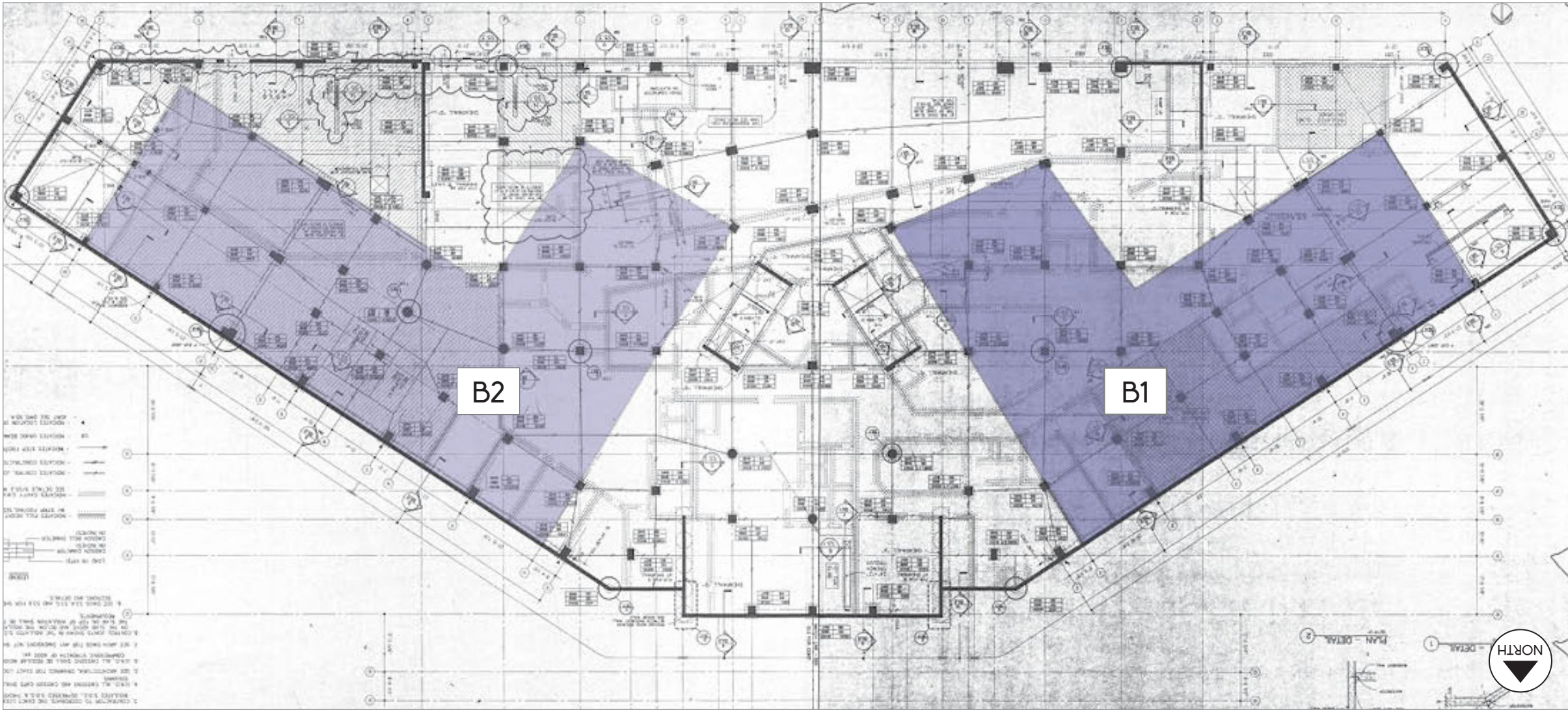
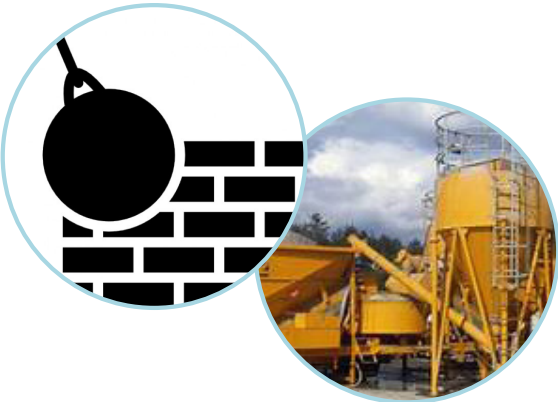


CENTER FOR EQUITY
CAMPUS

#3: NEW BUILD // Center for Equity Campus

Site Analysis — Structure & Phasing

To maximize savings on the new construction we are looking at how the existing foundation structure of caissons could be reused. We are also looking at how the concrete demo could be reused in a small on-site batch plant to create concrete for the new construction. Creating two separate buildings allows for the potential to either phase the project as a single owner or sell half the site to a market rate developer. Phasing of the project is possible here and easier. Can use all 3 buildings for Center for Equity or carve off Building 1 for developers (most valuable site). As analyzed in the previous diagrams we propose a 3rd building in the existing public space.

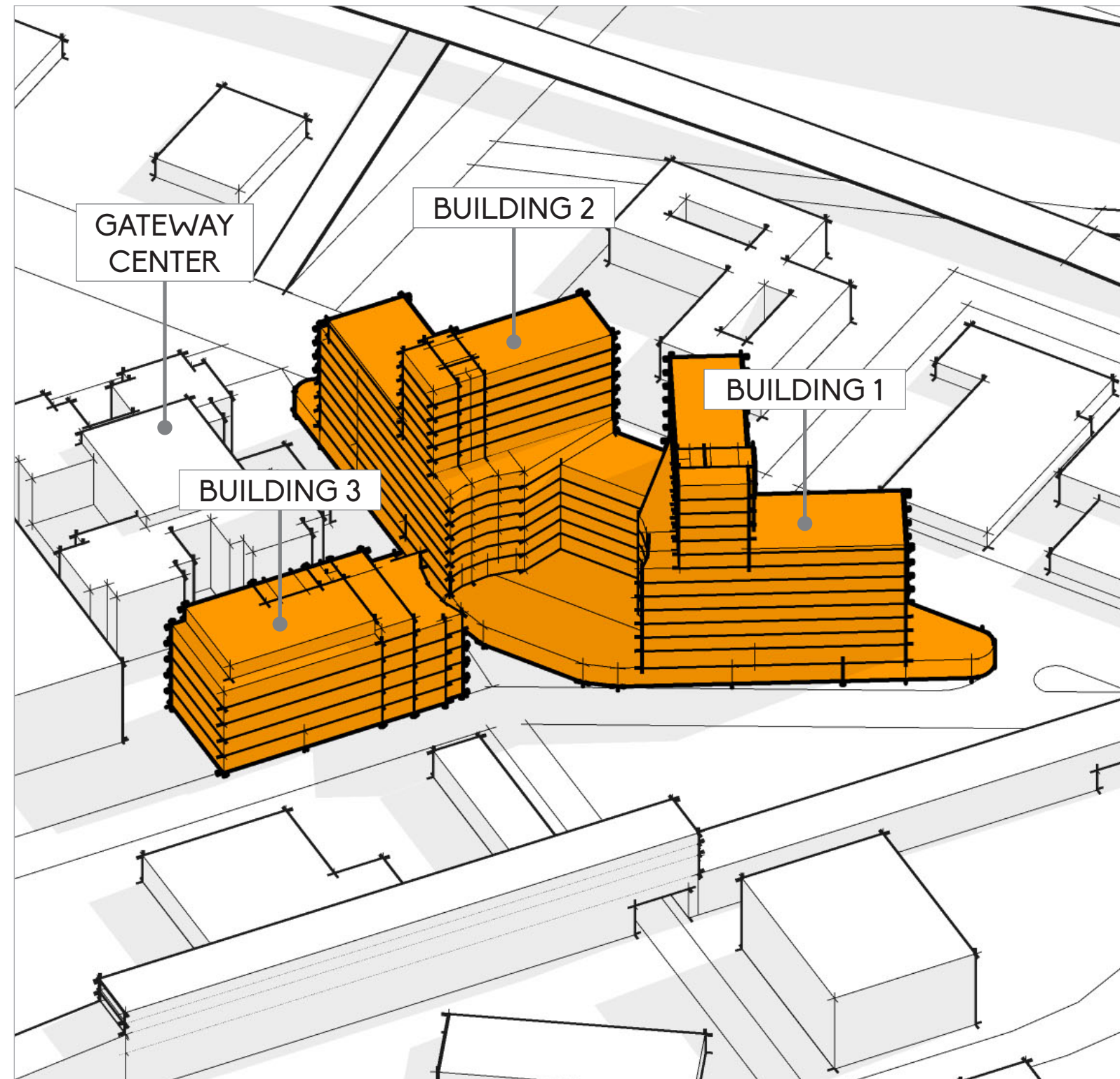


#3: NEW BUILD // Center for Equity Campus

Site Massing

This reorganization of the Center for Equity into a campus comprised of 3 buildings will support the downtown master plan and the outputs from the master planning workshop in a few ways:

1. The scale/massing is now more in relationship to the existing building and context of the neighborhood
2. Improved and activated public open space and street edges
3. Creates a new physical, potentially catalytic anchor to South Downtown and a stop for people on their way home



ACTIVATED PUBLIC PLAZA



OUTDOOR TERRACES



CAMPUS MASSING

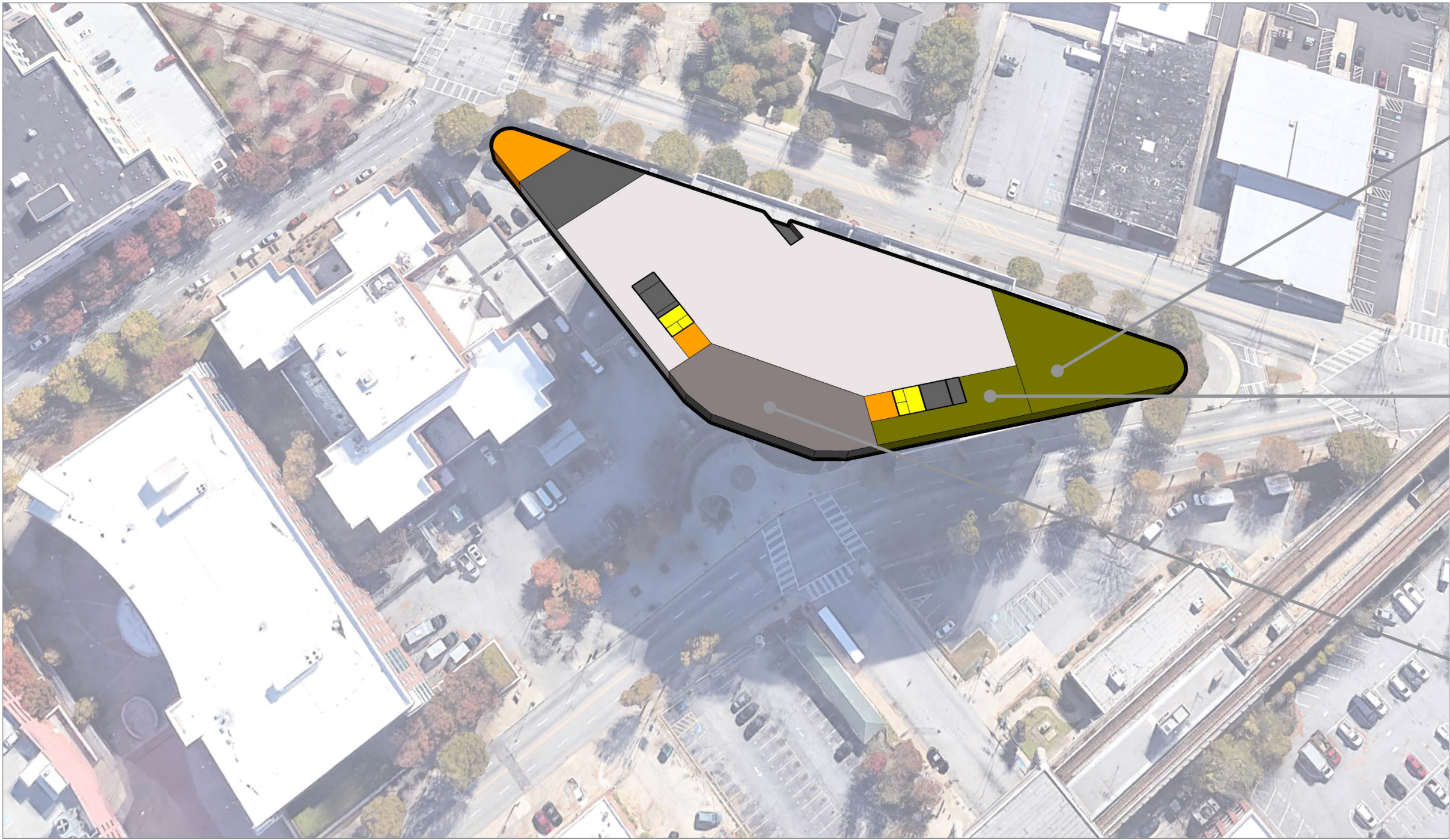


ACTIVATED STREET EDGE /
DAILY NEEDS RETAIL

#3: NEW BUILD // Center for Equity Campus

Basement Level Programming

The basement has the potential to accommodate on site parking as well as a commercial kitchen, grocery store, and 5G data center.



GROCERY STORE



COMMERCIAL KITCHEN



5G DATA CENTER

#3: NEW BUILD // Center for Equity Campus

Ground Level Programming

This ground floor option shows a mix of arts and culture, daily needs retail, food businesses, and community spaces that would activate the ground floor and plaza.



FOOD HALL



ACTIVATED
PUBLIC PLAZA

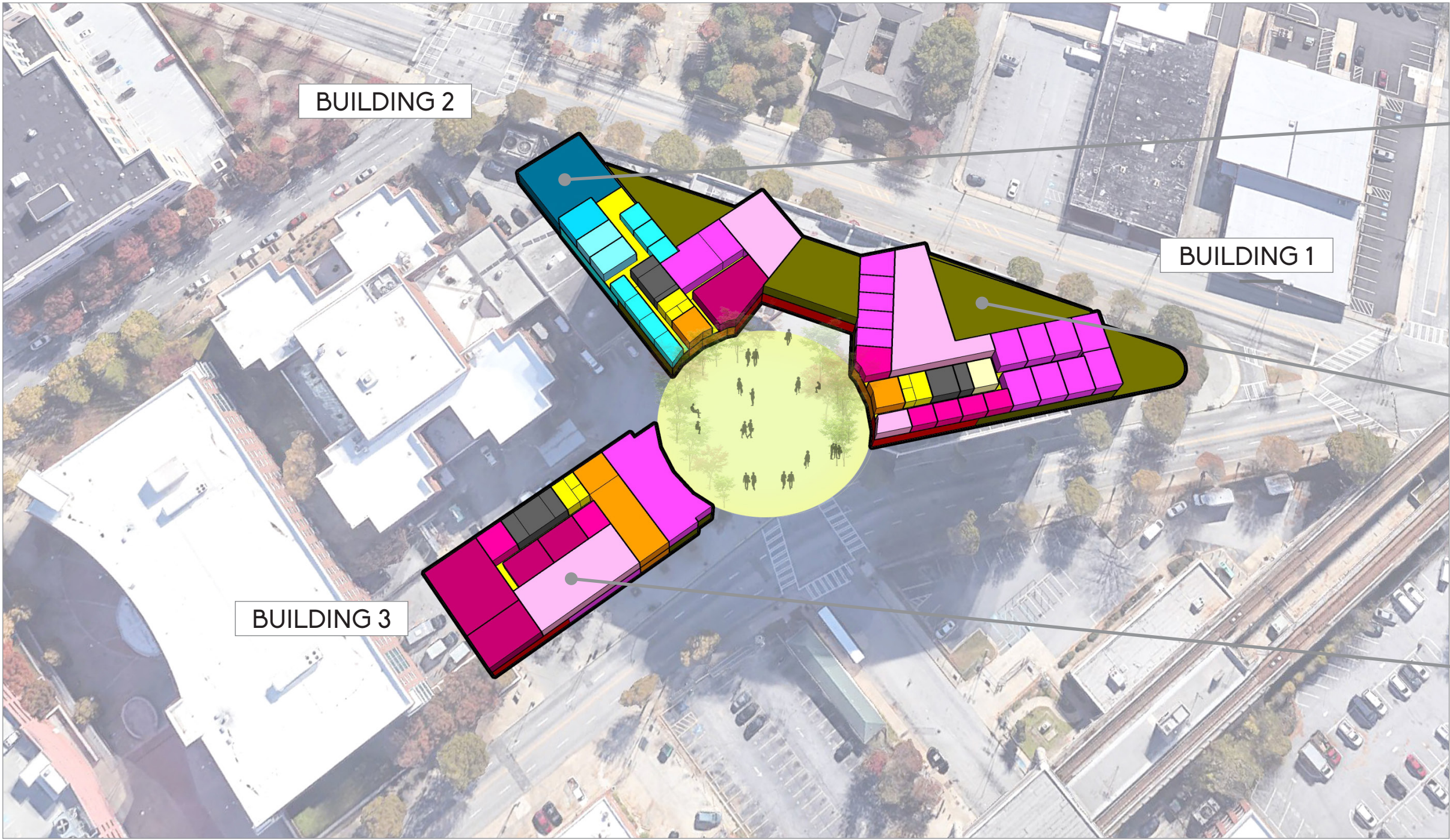


DAILY NEEDS RETAIL

#3: NEW BUILD // Center for Equity Campus

Second Floor — Community Hub

The second floor supports a multitude of community spaces including childcare with outdoor space and cultural activities.



BLACK BOX THEATER



OUTDOOR
CHILDCARE AREA



COMMUNITY HUB

#3: NEW BUILD // Center for Equity Campus

Sixth Floor — One-Stop Shop

As we move up the building, education, financial empowerment, and access to justice aggregate to create a one-stop shop.



KNOWLEDGE BUILDING



FINANCIAL EMPOWERMENT



LEGAL SERVICES

#3: NEW BUILD // Center for Equity Campus

Seventh Floor — Affordable Housing

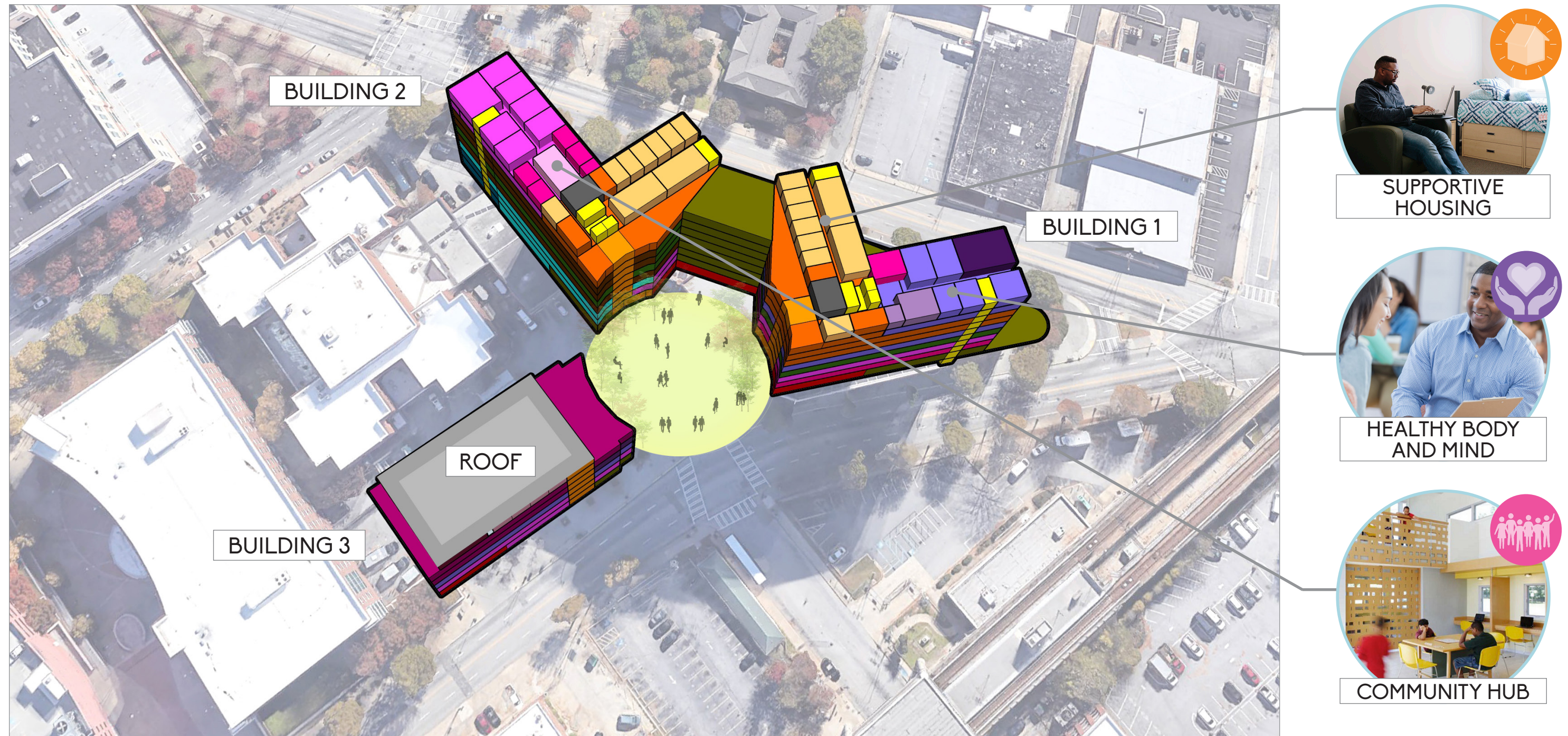
A mix of affordable one, two, and three bedroom housing units with supportive services can work well on the upper levels.



#3: NEW BUILD // Center for Equity Campus

Eighth Floor — Transitional Housing

Behavioral health services and community hub amenities can be combined with supportive housing as well.



#3: NEW BUILD // Center for Equity Campus

Finance & Development

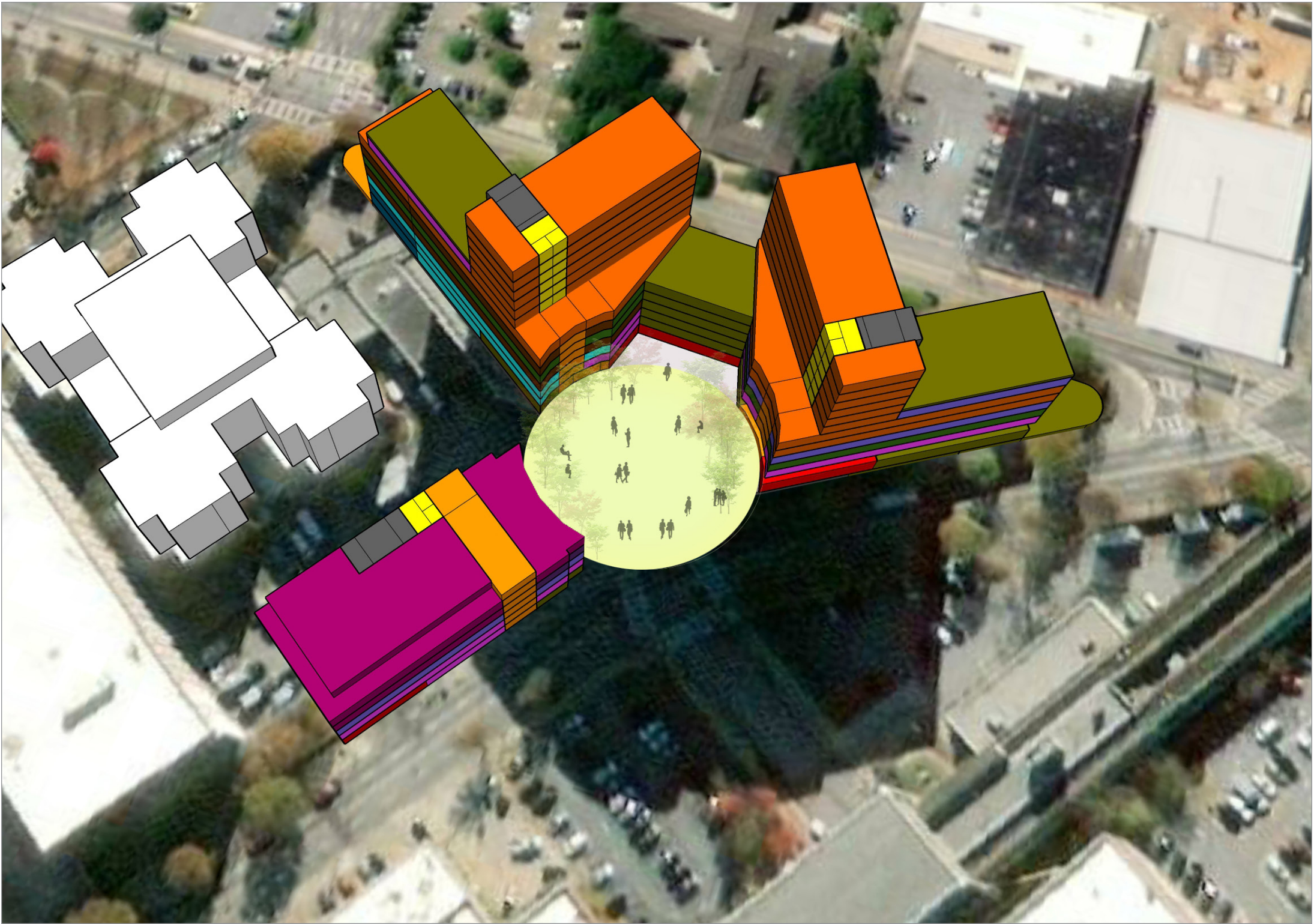
Strategy Narrative

- Demolition of the existing structure
- Incorporation of all desired programmatic uses
- Fresh start reduces construction complexity, development contingencies, and architectural compromises
- Significant opportunities for public-private partnerships, multi-phased development, and innovative ownership structures
- Relies heavily on the strength of financial/ transactional deal-making
- Tenant fit-out costs = \$77 – \$177 / SF

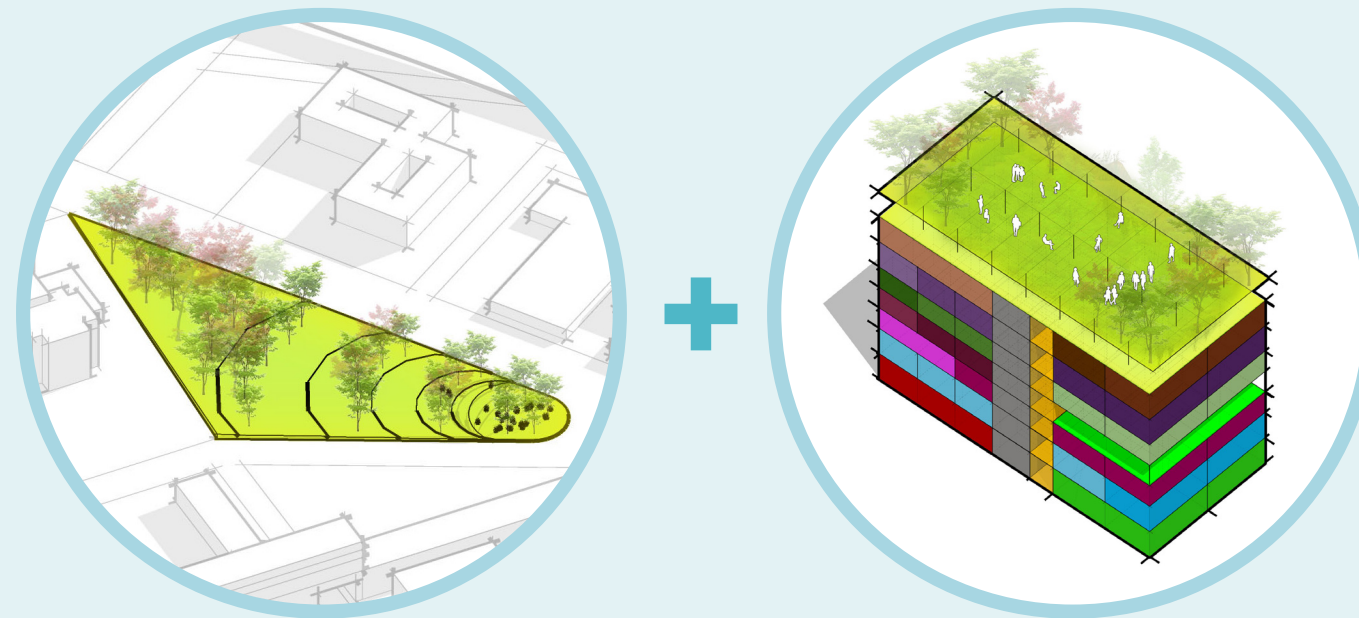
Hard Cost Budget

Center for Equity SF	380,000 SF
Total SF	463,000 SF
Base Bld. Hard Costs*	\$85 – \$91M
Tenant Fit-Out Costs	\$29 – \$67M

* Includes core and shell base building costs, but does not include soft costs and financing costs.



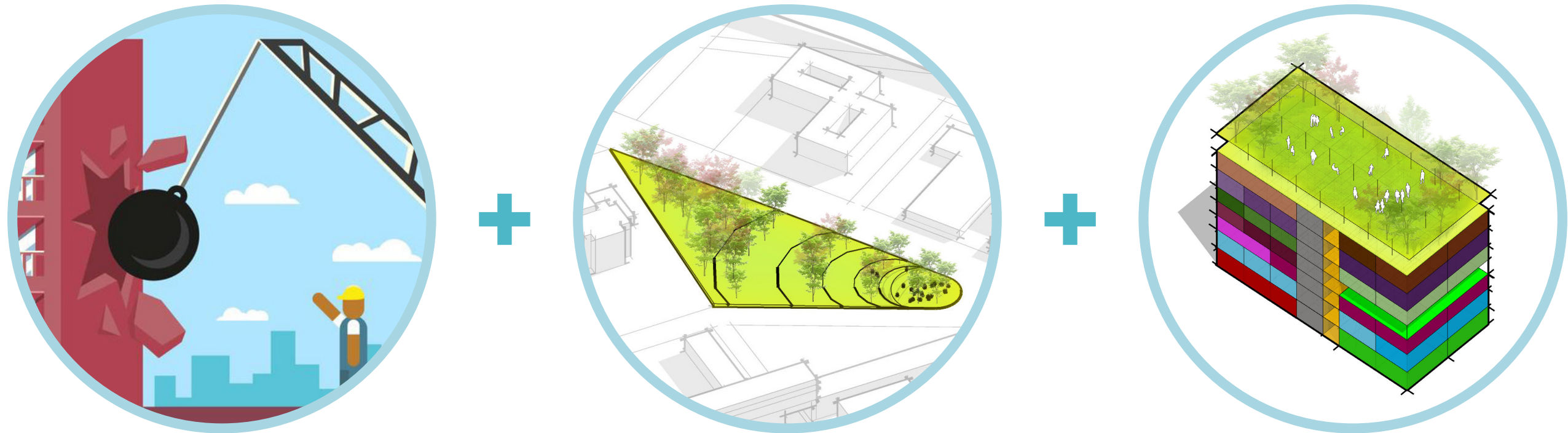
NEW BUILD STRATEGY #4



DISTRIBUTED EQUITY

#4: NEW BUILD // Distributed Equity

Design Strategy



#4: NEW BUILD // Distributed Equity

Precedent: Restore Oakland



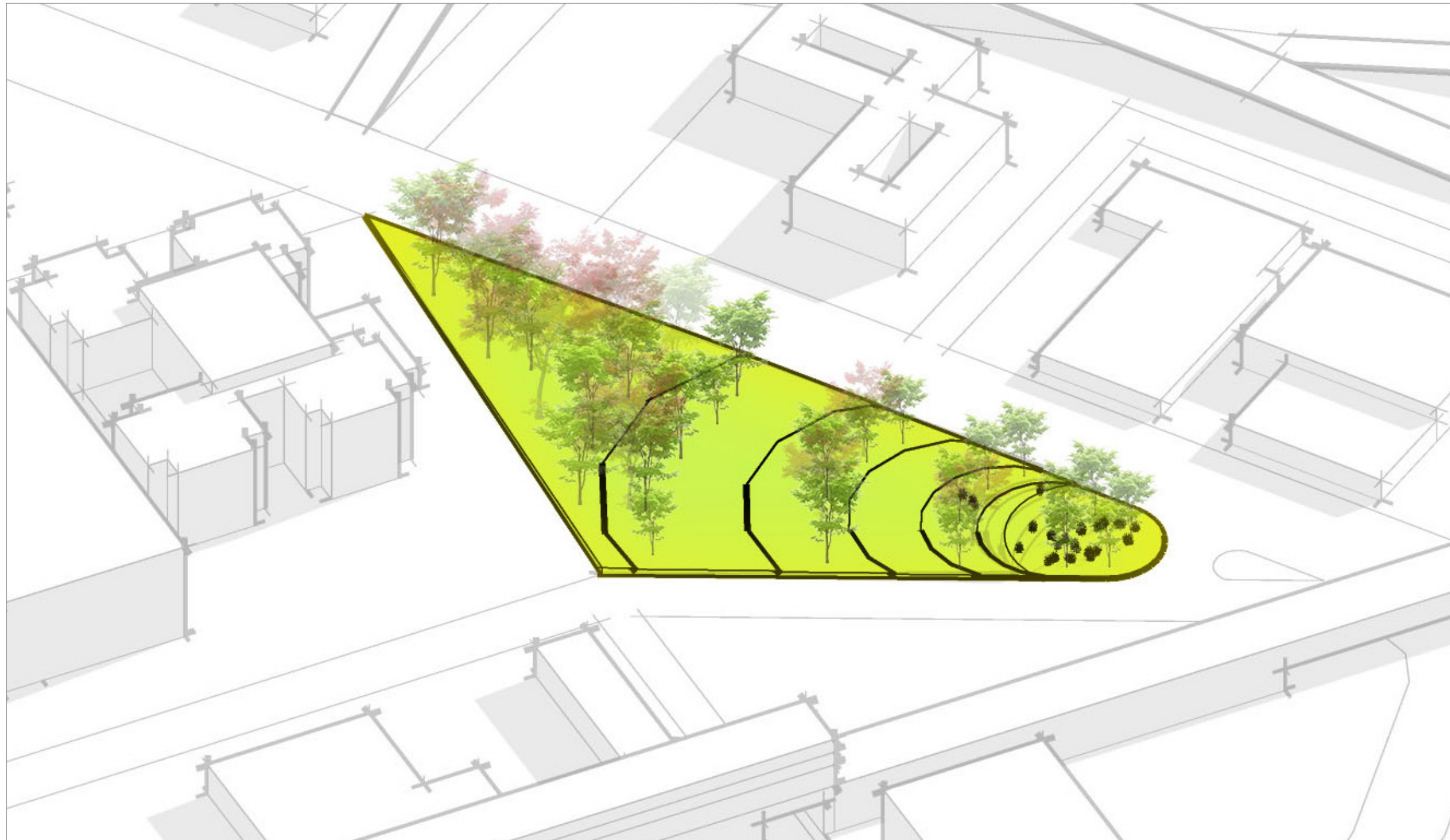
The Restore Oakland project designed by Designing Justice + Designing Spaces is a catalyzing development for a potential Restorative Justice City in Oakland, California, and is the first center for restorative justice and restorative economics in the country.

The Restorative Justice City Neighborhood Data Project proposes to mobilize neighborhood stakeholders and government officials around the design and implementation of restorative justice policies and practices among the City's criminal justice and critical service agencies; and concomitantly, around reinvestment in place-specific, restorative infrastructure and neighborhood service corridors on the ground.

#4: NEW BUILD // Distributed Equity

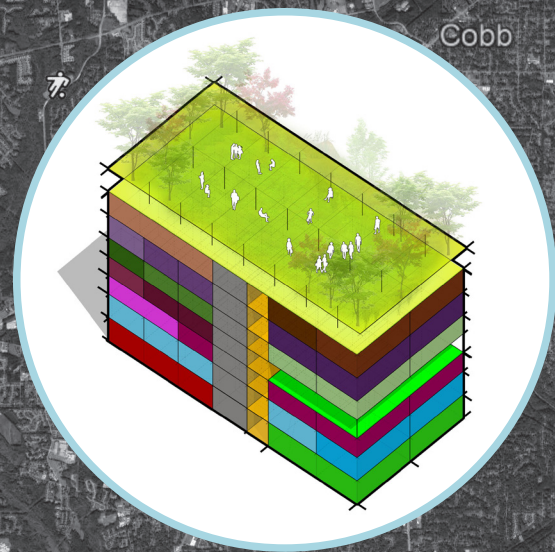
Part I: Demo and Grow

If the existing building were completely demolished there is potential for the site to be turned into an inviting, beautifully landscaped open space with an amphitheater and healing memorials for those impacted.



#4: NEW BUILD // Distributed Equity

Part II: Distribute



NORCROSS

Similar to the proposed restorative justice city project there can be smaller Center for Equity hubs distributed in strategic locations throughout Atlanta focusing specific services where they are needed most and increasing accessibility.

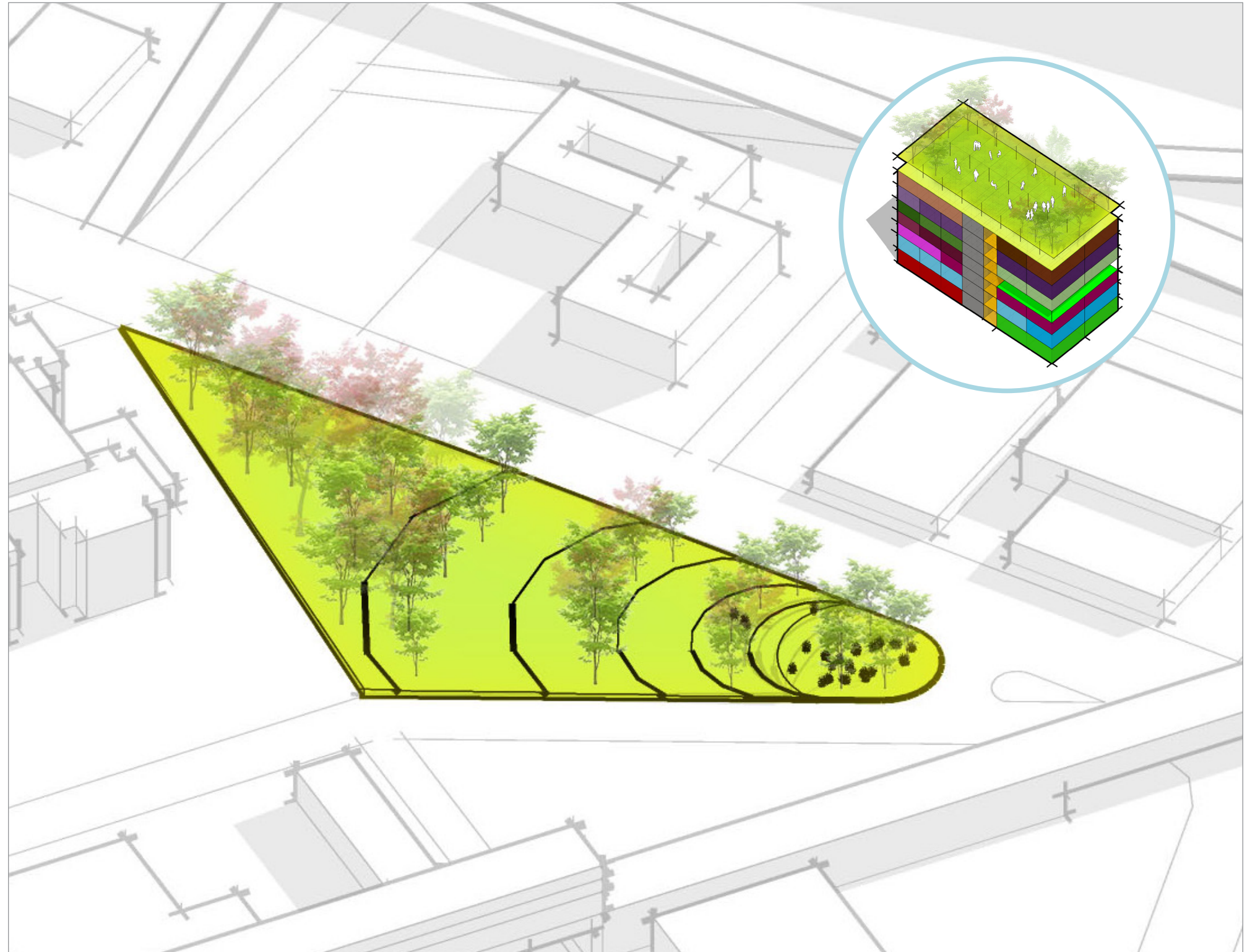
With a few locations identified here, the greater Atlanta community can play a strategic role in continuing to map the distribution of these Centers.

#4: NEW BUILD // Distributed Equity

Finance & Development

Strategy Narrative

- ACDC is demolished and the site is developed as a park, memorial, urban farm, or seed bank
- Service model pivot; a decentralized network of smaller Centers for Equity replaces the concept of a single Center
- Site selections could be based upon which communities were most impacted by ACDC and would most benefit from accessible resources
- Smaller, neighborhood-oriented Centers improve ability to execute by reducing the execution risks associated with large-scale projects, while offering greater flexibility to customize by neighborhood
- Through the development of the modules, a small format Center for Equity is estimated to be 75-100K SF or 20% of the size of the current ACDC
- Depending on desired site locations, additional Centers could be new construction or repurposed buildings
- The current ACDC site could pilot the small format Center for Equity with new construction





4

BUILDING SYSTEMS & SUSTAINABILITY

Incorporating sustainability practices not only saves energy and operational costs, but offers several opportunities within the Knowledge Building and Financial Freedom Pathways where on-site education, training and vocational programs can be developed around these more efficient building systems in service to those that have been most impacted. These opportunities are outlined in the following pages.

BUILDING SYSTEMS & SUSTAINABILITY

Environmental Analysis

Things to consider

Temperature and Humidity

The path of the sun, yearly temperatures, and rainfall all have an impact on a myriad of building design features. These include the exterior building envelope, glazing and roofing material as well as the building interior and how the building systems need to be designed to mitigate heat gain and loss to maintain a comfortable environment.

Degree Days

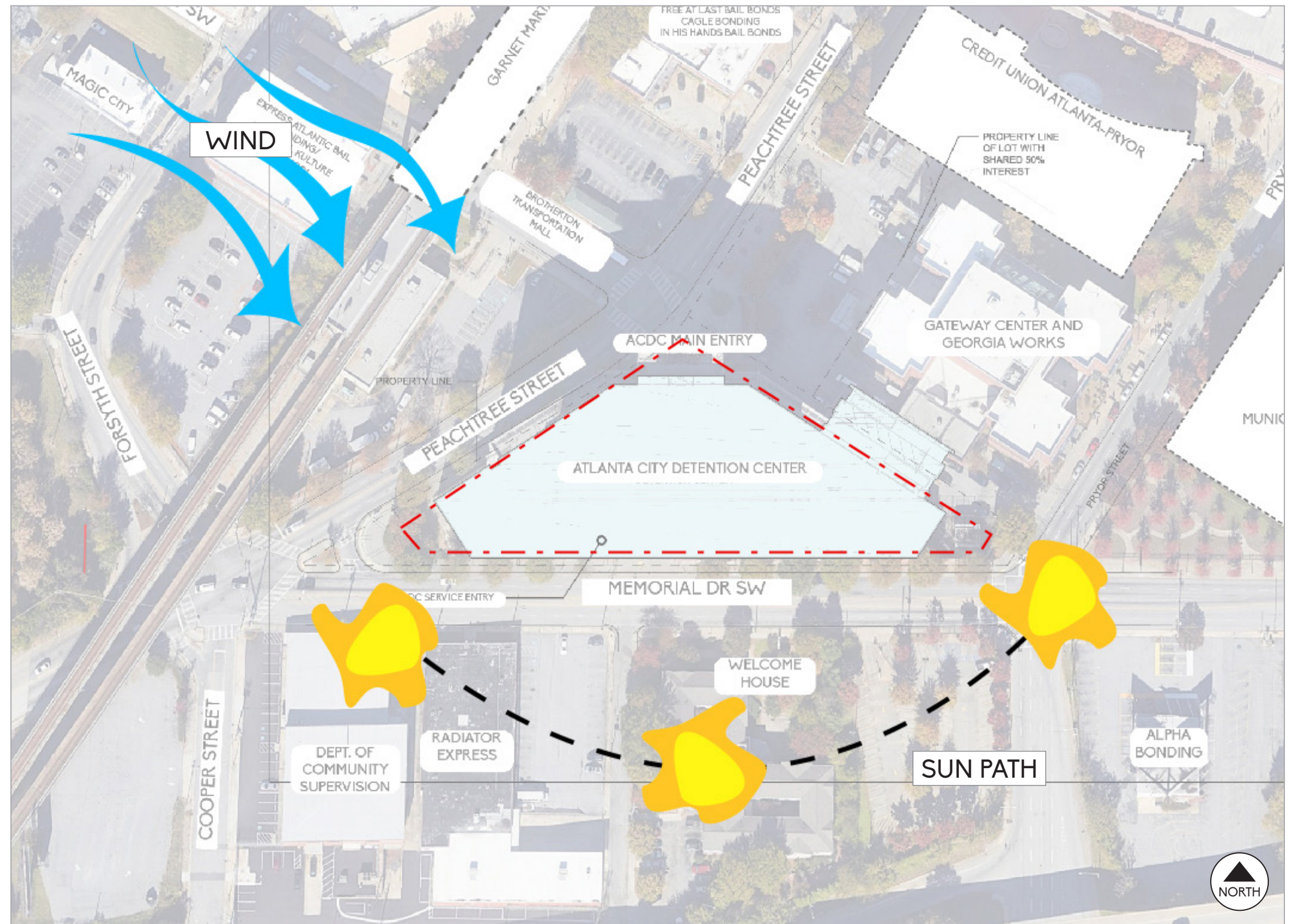
There are heating degree days (HDD) cooling degree days (CDD), and growing degree days. Each measures the amount and length of time the outside air temperature is above (CDD) or below (HDD) a certain temperature. This helps determine the amount of energy and type of HVAC systems needed to regulate building temperature. Plant and insect growth is determined by growing degree days.

Wind

Wind loads resulting from the speed and the direction of the wind impacts structural systems and building height. The downdraught effect which causes gusts of wind at street level affecting pedestrians and cars, must also be considered.

Building Orientation

The orientation of the existing building as well as orientation for a new building is key in optimizing the above factors for sustainability.

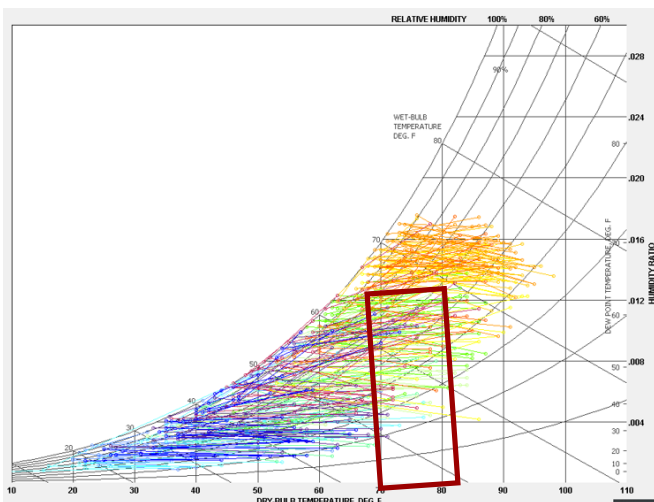
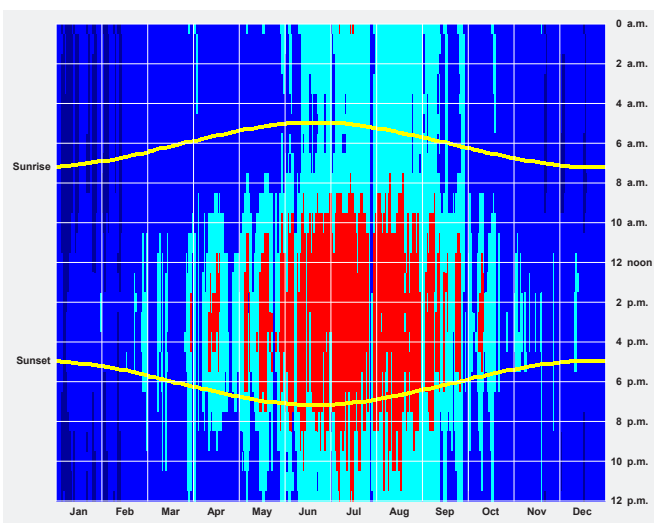


BUILDING SYSTEMS & SUSTAINABILITY

Environmental Analysis

Temperature and Humidity

- It's uncomfortably hot (red area) much of the day from May through September
- The winters are cold but rarely freezing; still, winter heating is not to be neglected
- In June, July, and August it is hot and humid day and night



Comfort Zone

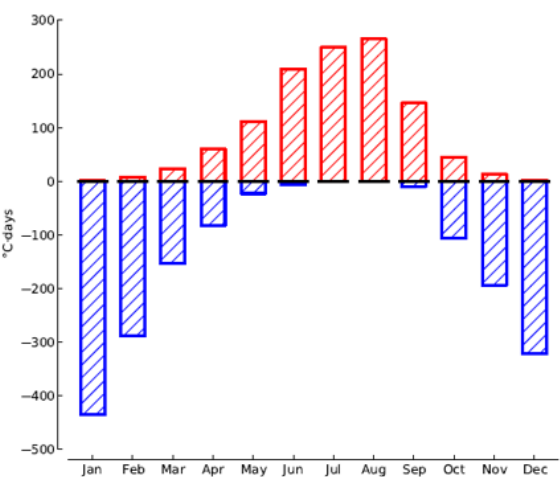
DRY BULB TEMP (degrees F)

4%	< 32
55%	32 - 69
28%	69 - 81
13%	81 - 100
0%	> 100

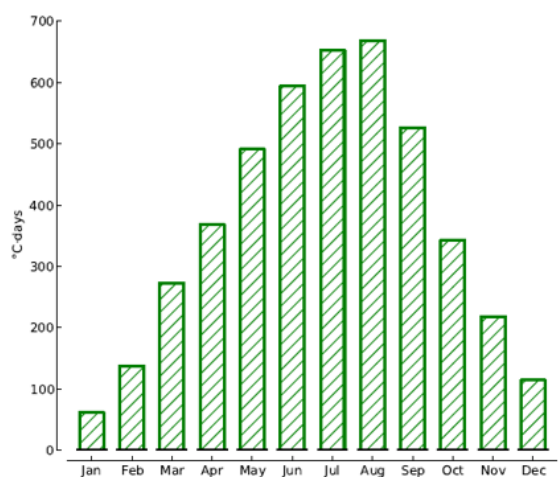
Degree Days

- Although there are slightly more heating degree days, indoor spaces have natural heat gains so the mechanical load on the building will be strongly cooling dominated

Figure 26: Heating (blue) and cooling (red) degree days as calculated against a baseline or 18C. There a total of 1622 heat degree days and 1131 cooling degree days. Growing degree days as calculated against a baseline of 5C. There are a total of 194 growing degree days.



(a) Heating and cooling degree days



(b) Growing degree days

Wind — Seasonal and Average

- The wind is fairly consistent from the northwest and west (also see average wind speed)
- Summer potential for natural ventilation is limited because air is too hot and humid to be comfortable
- In winter, need to block winds from the Northwest

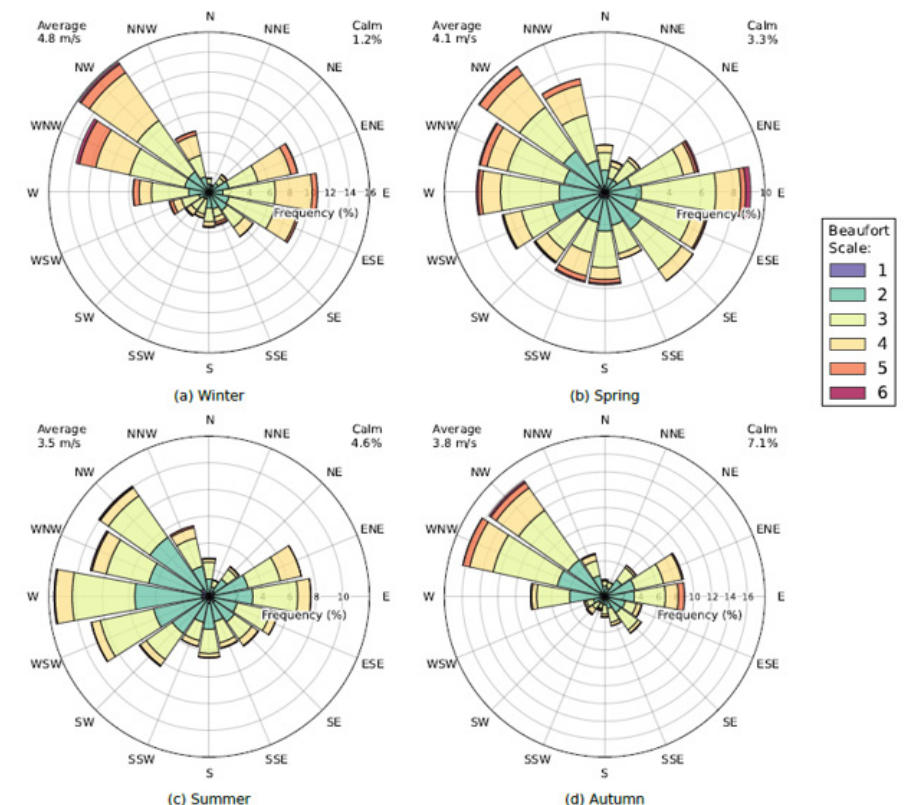
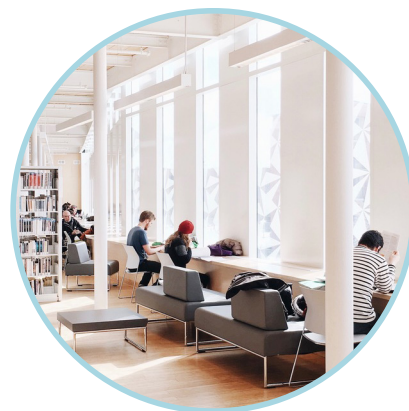


Figure 29: Frequency of wind direction and speed given season.

BUILDING SYSTEMS & SUSTAINABILITY

Opportunities

1. Environmental benefits both on premises and for the surrounding area
2. Revenue generating opportunities for the project (e.g., leased 5G rack space; food distribution)
3. Workforce development and high-tech training opportunities across many disciplines for the community



Access to Daylight

Daylighting Notched Floors



Building Structure & Envelope

Framed Window Walls
Timber Frame Structure and Framing



Embedded Nature / Food & Agriculture

Green Walls
Indoor Hydroponics
Aquaponics



Protection from the Elements

Sun Shading
Wind Protection
Low Emissivity / Dual Pane Windows
Reduced Heat Gain & Loss



Acoustics

Acoustic Isolation
Dual Pane Windows



Sustainability

Rooftop Solar Energy
Storm Water Collection
Recycled Materials



Technology

5G Data Center
Waste Heat Recovery / Supplemental Heating



Thermal Comfort

Radiant Flooring
Air Handling Units / Zoned Thermostats
Dual Pane Windows
Ceiling Fans
Direct Outside Air Systems

BUILDING SYSTEMS & SUSTAINABILITY

Solar Energy

- As is generally true, south-facing panels will produce much more energy or hot water than other orientations
- September and October are not as productive as expected; probably due to frequent rain/cloud cover in the fall
- **150kW** potential rooftop PV noted in presentation.
 - System capacity could increase to approx. 200kW w/high efficiency modules
 - Energy generation:
 - 1,428 kWh/yr per kW (tilted panels)
 - 1,260 kWh/yr per kW (flat panels)

Incident solar energy:

<https://www.google.com/get/sunroof/building/33.7472871/-84.3954736/#?f=buy&b=500>

PV production from PVWatts:

<https://pvwatts.nrel.gov/pvwatts.php>



BUILDING SYSTEMS & SUSTAINABILITY

Timber Frame Structure

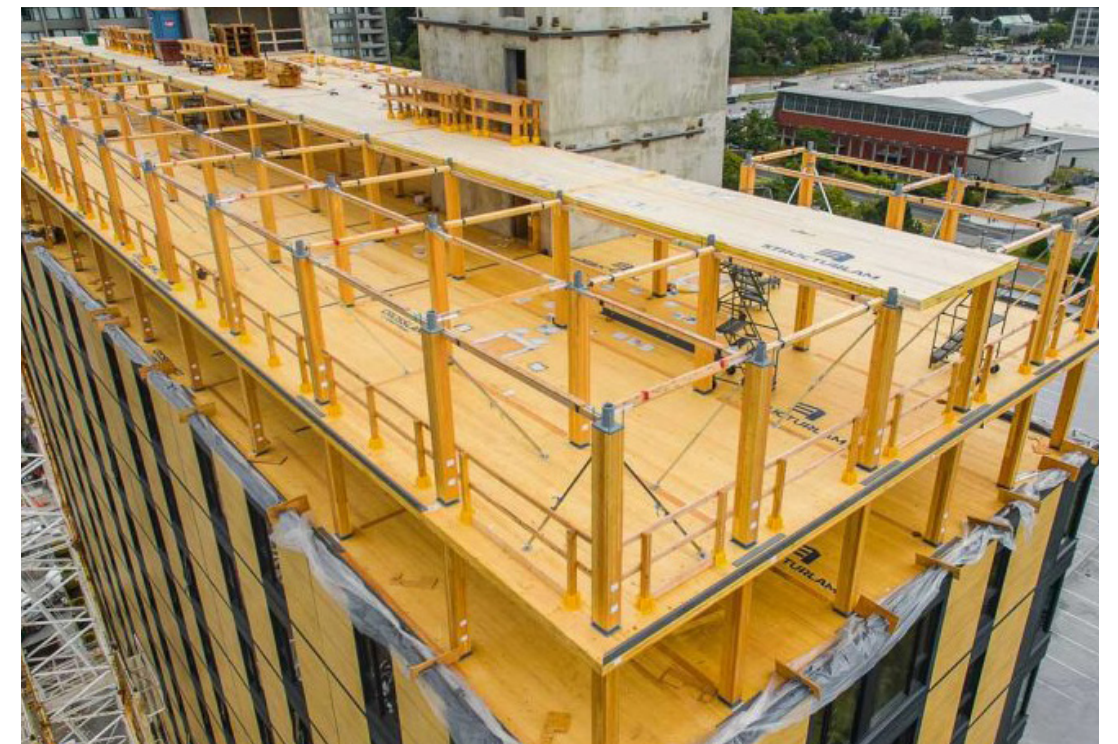
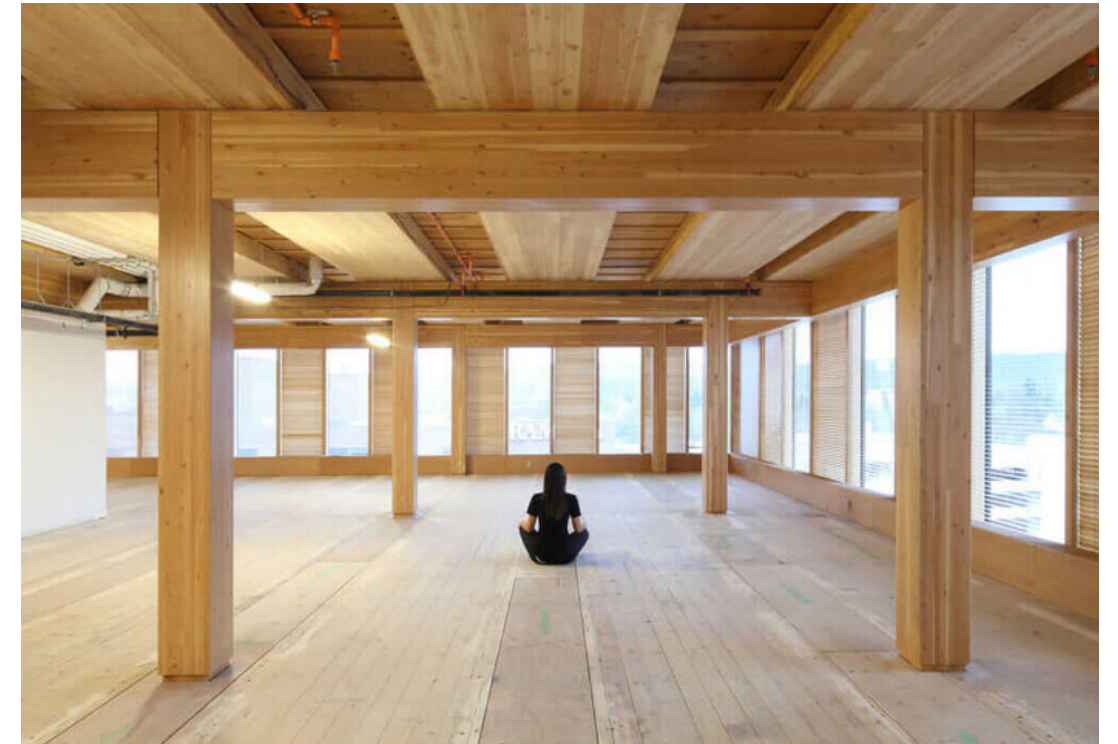
Advances in timber construction benefit both the repurposing and new build strategies embodying a new expression of warmth and well being and healing for the Center for Equity.

Repurposing:

- The timber infill option at the upper floors increases leasable space in the building where the floor is being cut to let light in
- Allows for a thin floor to match the thickness of the existing post tensioned slabs
- Wood is a warm finish signifying new healing intentions

New build:

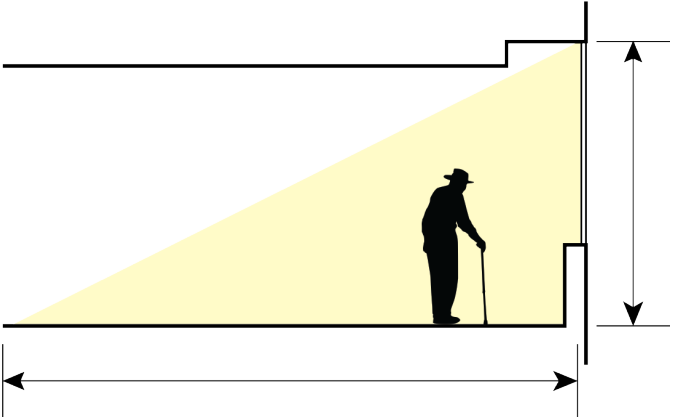
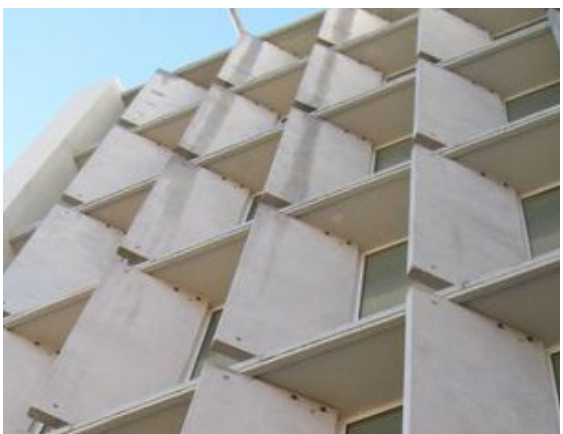
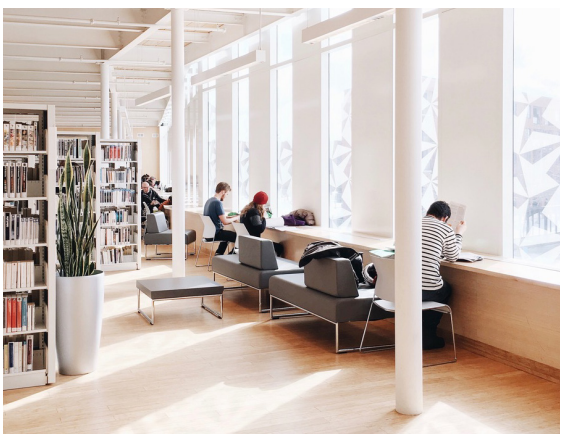
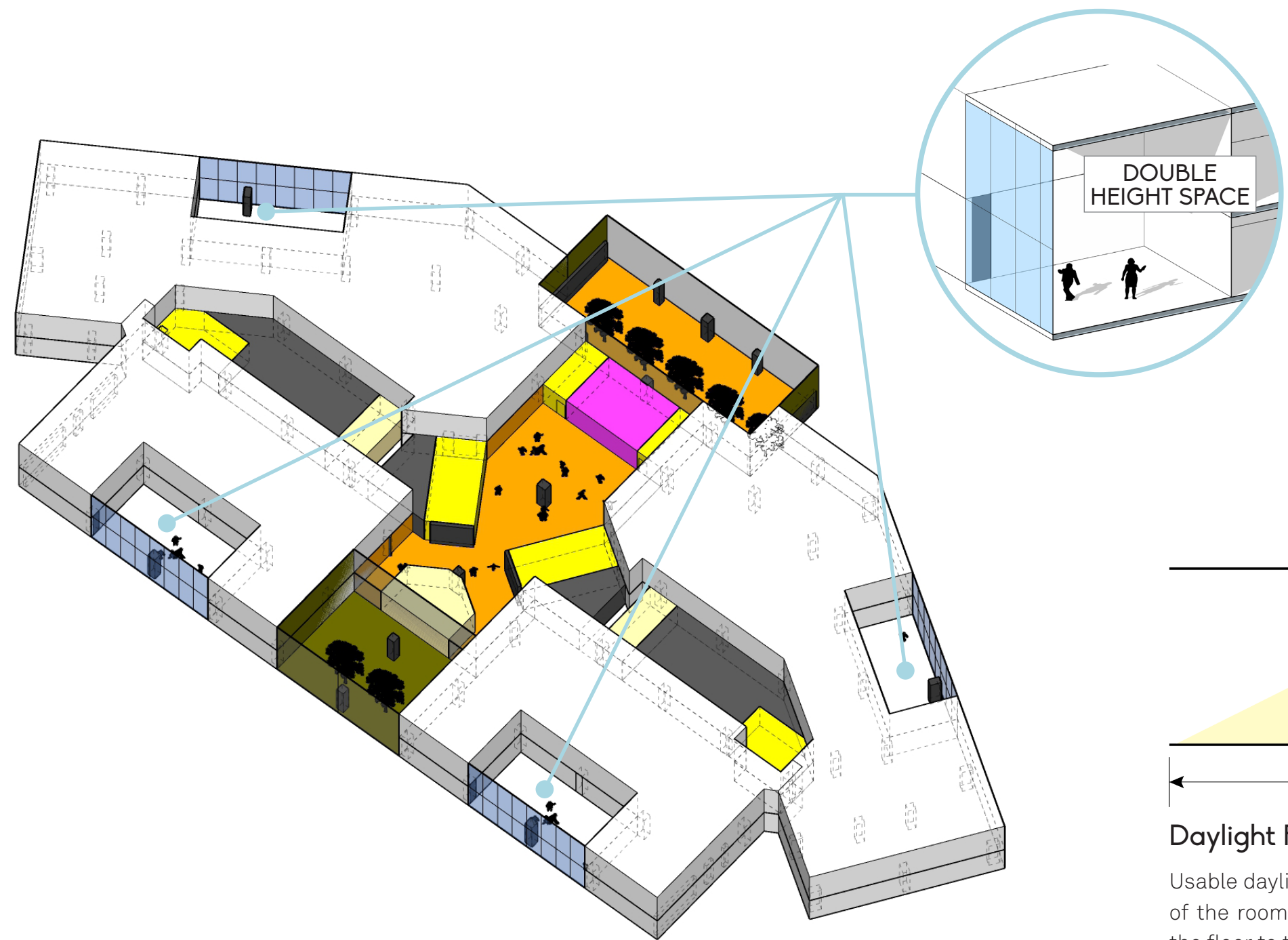
- Large-scale structural wood systems, including heavy timbers and engineered framing systems can be used as the main structural system to build a high rise building as opposed to concrete and steel
- Easier assembly and reduced construction time and cost
- Less carbon is released during its manufacture resulting in reduced environmental impact



BUILDING SYSTEMS & SUSTAINABILITY

Solar Shading & Daylighting Strategies

Notching out the mezzanine floor in strategic areas brings natural light further back into the deep floor plates of the building.



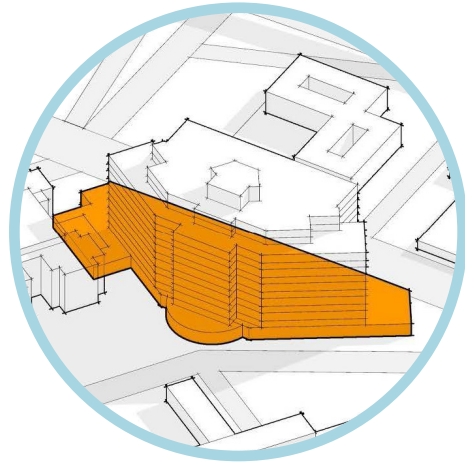
Daylight Rule of Thumb

Usable daylight is available at the depth of the room = to twice the height from the floor to the top of the opening.



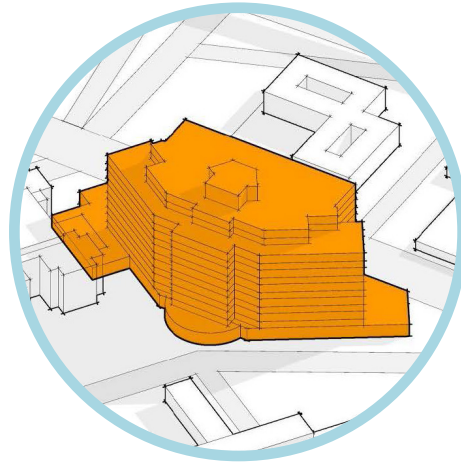
DEVELOPMENT & FINANCE SUMMARY

4 DEVELOPMENT STRATEGIES



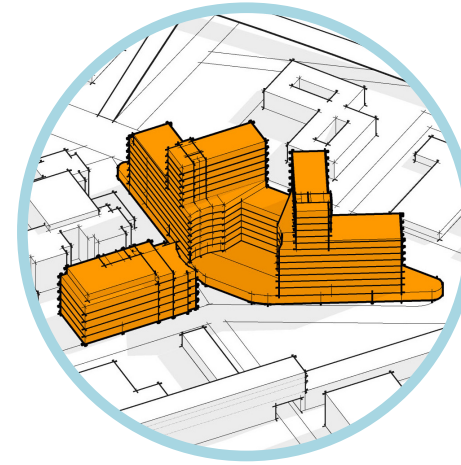
#1:
EQUITY PODIUM

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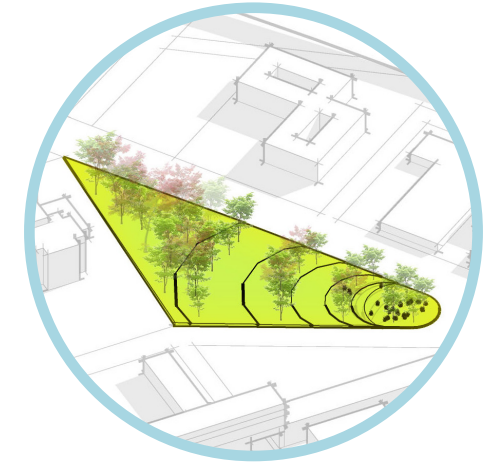
#2:
DOWNTOWN ANCHOR

- Incorporation of all desired programmatic uses
- Catalytic project for South Downtown
- The change of use carries complexity. Increased contingencies (time and money)
- Anticipated development costs and uses create a financing gap
- Creative financing structures can cover some development costs
- A bold project vision can attract additional resources (strategic partnerships, philanthropy)
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#3:
CENTER FOR EQUITY CAMPUS

- Demolition of the existing structure
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#4:
DISTRIBUTED EQUITY

- ACDC is demolished and site is developed as a park, memorial, urban farm or seed bank
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- Depending on desired site locations, Centers could be new construction or repurposed buildings
- The current ACDC site could pilot the small format Center for Equity with new construction

DEVELOPMENT THEMES // Moving Toward Iteration & Refinement

How do we choose a development option?

- **Intention.** Jail closure, phase development, catalytic growth
- **Marketing.** Attracting interest from community, municipal leadership, tenants, investors, and lenders
- **Site Value.** Decision-making around land use
- **Option Value.** Creating flexibility and viable alternatives
- **Risks.** Weighing construction complexity, development contingencies, architectural compromises
- **Costs.** Pairing resources with priorities
- **Speed.** Urgency, creating value, time-value of money
- **Mixed Uses.** Non-center tenants offer revenue, but at a cost (space, development cost, etc.)
- **Financial Sustainability.** Covering operating costs and total development costs
- **Vision Alignment.** Tracking progress from the 2019 resolution to now

What's next?

- It is anticipated that there will be an iterative process to refine the four major design components: programming, architecture, real estate finance, and policy implications.
- Given the inevitable trade-offs that come with a project of this scale, the iterative design process will lift intentions to the surface; some may see the project as foremost about the jail closure while others may see the project as a catalytic first move to reinvigorate the South Downtown neighborhood.

What time is it now?

This clock establishes what has been accomplished, where we are now and what is to come in a lengthy multi-phased process to get the Center for Equity built.

